

AD-A098 005

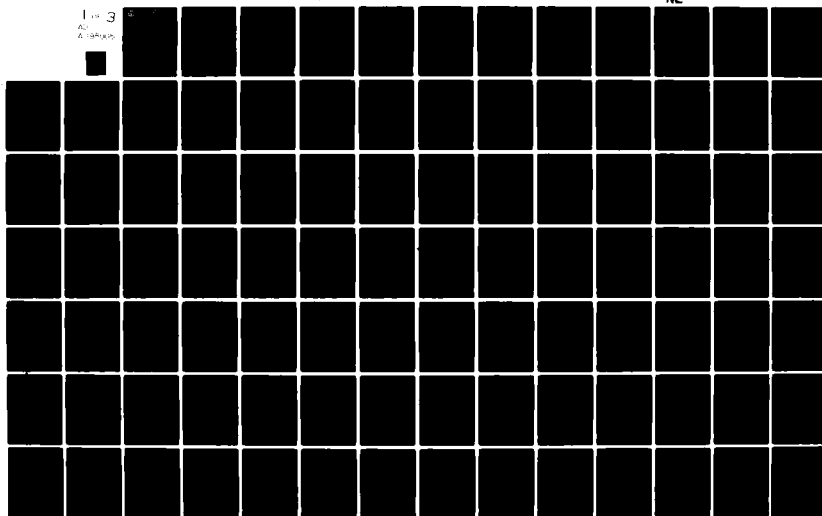
DEFENSE LOGISTICS ANALYSIS OFFICE FALLS CHURCH VA
DOD SUPPLY SUPPORT REQUEST STUDY (DODSSR). VOLUME I. BASIC REPO--ETC(U)
DEC 80

F/G 15/5

UNCLASSIFIED

NL

1 of 3
AD-A098 005





LEVEL

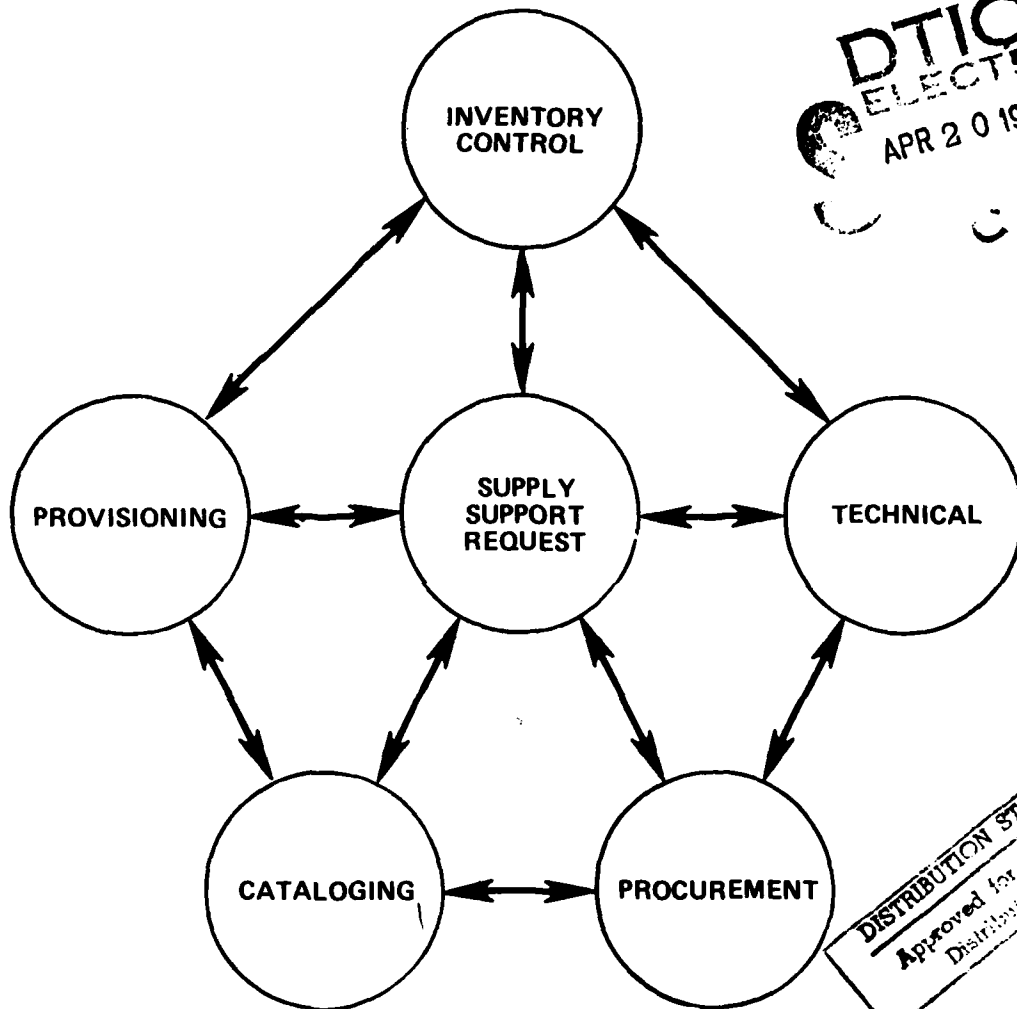
DoD

**SUPPLY SUPPORT REQUEST STUDY
(DODSSR)**

Volume I - Basic Report

AD A 098005

DTIC
ELECTRONIC
APR 20 1981



DISTRIBUTION STATEMENT A
Approved for public release;
Distribution unlimited

DEFENSE LOGISTICS ANALYSIS OFFICE

December 1980

DTIC FILE COPY

81 3 30 014



FOREWORD

By Memorandum dated August 17, 1977, the Deputy Assistant Secretary of Defense (Supply, Maintenance and Services) established a Department of Defense Study to conduct a comprehensive review and analysis of the supply support request (SSR) systems for generating, transmitting, processing and controlling SSRs in order to develop systems improvements to promote effective supply support of DoD equipments.

The Study included a review of SSR policy and procedures, the design of automated systems to implement the procedures and an operational implementation review of the effectiveness of SSR systems design.

This Report documents the study approach and methodology used in the pursuit of the study and presents observations, analyses, findings, conclusions and recommendations with supporting research and rationale.

T. D. Beck

T. D. BECK
Director
DODSSR Study

DTIC
APR 20 1981
C

Roger M. McKinley
ROGER M. MCKINLEY
Deputy Chief
Defense Logistics
Analysis Office

DISTRIBUTION STATEMENT
Approved for Release
by NSA on 08-21-2013

ACKNOWLEDGMENT

During the past three years the DODSSR Study Team has been engaged in an extensive review and analysis of the supply support request system throughout the Department of Defense and General Services Administration. In accomplishing this study, a nearly endless list of persons, organizations and documents were visited or consulted. Numerous sources provided input to the final report.

It would be an overwhelming task to adequately acknowledge each of the contributors individually. However, we would be remiss if we did not provide credit to those organizations and individuals who worked so closely and extensively with us.

The DODSSR Study Team consisted not only of analysts from the study assignee but of contact points and coordinators from headquarters, system design activities and operational level activities. We, therefore, would like to express our collective appreciation to contact points from all these levels for their coordination efforts.

In this regard, we individually thank the following study team contact points for their tireless efforts in coordinating study requirements:

Mr. Nicholas Morkides, U.S. Army DARCOM Catalog Data Activity

Mr. Samuel Gray, U.S. Naval Supply Systems Command

Ms. Dorothy Solinski, U.S. Air Force, Deputy Chief of Staff,
Systems & Logistics

Mr. Kenneth Storms, Headquarters, U.S. Marine Corps

Mr. James O'Donnell, Headquarters, Defense Logistics Agency

Ms. Earline Bassett, General Services Administration

Our research efforts entailed extensive systems review and data collection and analysis. We certainly appreciate the efforts of our coordinators, analysts and programmers at the system design activities for their efforts in programming requirements for our data collection and test requirements, participating in our questionnaires and answering our endless questions concerning design of SSR systems.

PRECEDING PAGE BLANK-NOT FILMED

Accession For
NTIS GRA&I
DTIC TAB
Unannounced
Justification
BY
Distribution/
Availability Codes
Avail and/or
Special

100-200000
A

Mr. Robert Levin, U.S. Army Automated Logistics Systems
Management Activity

Mr. James Fehlinger, U.S. Navy Fleet Material Support
Office

Mr. Max Southwell, Comptroller, Headquarters
2852d Air Base Group, McClellan Air Force Base,
California

Mr. H. Denver Howard, DLA Systems Automation Center

Mr. Paul Leonard, DLA Administrative Support Center

Mrs. Christine Barrett, DLA Administrative Support Center

Finally, we would like to recognize Mr. Robert Hudson, U.S. Army Deputy Chief of Staff for Logistics. Mr. Hudson passed away during the course of the study. We would like to dedicate the efforts of all participants in the study as well as the final report to his memory.

TABLE OF CONTENTS

DOD SUPPLY SUPPORT REQUEST STUDY (DODSSR)

Volume I - Basic Report

<u>Chapter</u>	<u>Page</u>
FOREWORD	iii
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vii
LIST OF FIGURES	xiii
I INTRODUCTION	1
A. The Study Assignment	1
1. Background	1
2. Problems	2
3. Tasking	2
4. Purpose	3
5. Objectives	3
6. Scope	4
7. Assumptions	6
B. Approach	6
1. Study Team Composition	6
2. Study Phases	8
C. Methodology	9
1. Concept	9
2. Study Techniques	11
D. Report Organization and Format	15
1. Terminology	15
2. References	15
3. Report Outline	15
4. Appendices	16
5. Report Orientation	16
II MANAGEMENT ENVIRONMENT	17
A. Policy	17
B. Procedures	18

<u>Chapter</u>	<u>Page</u>
C. Supply Support Concept	19
1. Item Selection/Coding	19
2. Method of Management	19
3. Retained Items	19
4. IMM Items	21
5. Support Determinations	22
6. Supply Support Boundary	23
D. Organizations	23
1. Department	24
2. Service/Agency Headquarters	24
3. Systems Design Activities (SDAs)	27
4. Operating Activities	30
E. Functions	33
1. Supply Support Requests Tasks	35
2. Provisioning Functions	35
3. Technical Functions	36
4. Cataloging Functions	36
5. Inventory Control Functions	36
6. Procurement Functions	36
F. Summary	37
III PROBLEM IDENTIFICATION	39
A. Introduction	39
B. Approach	39
C. Questionnaires	40
1. Problems/Recommendations Questionnaire	40
2. Validation Analysis Questionnaire	45
3. Data Element Matrices Questionnaire	50
D. Tests	53
1. Validation Test	56
2. AUTODIN/Telefax Test	57
E. Quantitative Evaluation	58
1. Background	58
2. Reference	58
3. Summary	58

<u>Chapter</u>	<u>Page</u>
IV SYSTEMS REQUIREMENT	61
A. Functional Requirement	61
1. Introduction	61
2. Authority	61
3. Definition	61
4. Purpose	61
5. Scope	63
6. Generation Criteria	63
7. SSR Transaction Types	64
8. Transmission of SSRs	68
9. Controls	68
10. Performance Evaluation	70
11. Summary	70
B. Conceptual System	71
1. Purpose	71
2. Conceptual Systems Model	71
3. Description of Major Phases and Events	73
4. Summary	79
V COMPARATIVE ANALYSIS	81
Part 1 - Systems	81
A. Introduction	81
B. Contractor Processing Phase	82
1. Inputs	82
2. Files	82
3. Processing	82
4. Outputs	84
5. Controls	84
C. Provisioning Processing Phase	84
1. Inputs	84
2. Files	84
3. Processing	85
4. Outputs	87
5. Controls	87
D. SICC SSR Processing Phase	87
1. Inputs	88
2. Files	88

<u>Chapter</u>	<u>Page</u>
3. Processing	89
4. Outputs	94
5. Controls	95
E. IMM SSR Processing Phase	95
1. WIMM SSR Processing	95
2. CIMM SSR Processing	103
F. SICC SSR Advice Processing Phase	114
1. Input	114
2. Files	114
3. Processing	114
4. Outputs	118
5. Controls	118
G. Nonprovisioning SSR Processing	118
1. Nonprovisioning Processing Phase	118
2. SICC SSR Processing Phase	120
3. IMM SSR Processing Phase	120
4. SICC SSR Advice Processing Phase	120
5. Summary	120
H. SSR Change Transactions	121
1. General	121
2. Processing Considerations	122
3. SSR Change Transaction Volumes	124
4. Summary	124
I. Joint Provisioning	125
1. Background	125
2. Current Processing Considerations	126
3. Analysis of SSR Processing Under Joint Provisioning	127
J. NIMSR Processing	128
1. Processing Considerations	128
2. Feasibility of Automating NIMSR Processing	130
K. Summary Analysis and Conclusions	131

CHAPTER**Page**

1. General	131
2. System Considerations	132
3. Inputs	133
4. Files	142
5. Processing	145
6. Outputs	158
7. Controls	160

Part 2 - Management, Policies and Procedures . . . 165

A. Introduction	165
B. Management Review	165

1. Organizational/Functional Assignment . . .	165
2. Contractor and Provisioning Processing . .	167
3. Provisioning Screening	170
4. Provisioning/Supply Support Schedules . .	170
5. Performance Evaluation	171
6. Technical Data Transmission	175

C. Policy 175

1. Supply Support Methods	175
2. Supply Support Request Usage	176
3. SSR Generation Criteria	178
4. Method of Support/Level of Support Determinations	179
5. Accumulation of Requirements	185
6. Funding of Requirements	186
7. Technical Data Requirements	187
8. Supply Support Request Cycle	188
9. Transmission	190

D. Procedures 192

1. Introduction	192
2. IMM Manual	194
3. SSR Procedures	196

VI RECOMMENDATIONS

A. Introduction	215
B. Current System Changes	216
C. System Redesign Requirements	219
D. Policy Review	224
E. Management Review	227

Chapter

Page

APPENDICES

APPENDIX A	Study Assignment	231
APPENDIX B	Activities Visited or Consulted	239
APPENDIX C	Bibliography	243
APPENDIX D	References	253
APPENDIX E	Acronyms	257

LIST OF FIGURES

<u>Figures</u>		<u>Page</u>
I-1	The Team	7
I-2	Typical System	10

II-1	Supply Support Tree	20
II-2	Organizational Relationship	23
II-3	Operating Activities	30
II-4	Principal SSR Operating Activities	32
II-5	Functional Relationship	34

III-1	DODSSR Study Problems/Recommendations Questionnaire	42
III-2	DODSSR Study Validation Analysis Questionnaire Control Data Element Validation	47
III-3	DODSSR Study Validation Analysis Questionnaire Detail Data Element Validation Condition 1 LISSR (CXA)	48
III-4	DODSSR Study: Data Elements Questionnaire Outgoing Provisioning SSRs Control Data Element Sequence	52
III-5	DODSSR Study Data Elements Questionnaire Outgoing Provisioning SSRs Condition 1 LISSR (CXA)	54
III-6	DODSSR Study Data Elements Questionnaire Outgoing Provisioning SSRs Condition 1 LISSR (CXA)	55
III-7	Validation Test Sample	56

IV-1	Types of Provisioning/SSR Packages	68
IV-2	Conceptual Systems Model	72

V-1	Conceptual Systems Model	83
V-2	SICC SSR Processing Phase Sequence of Major Events by SICC Service	90
V-3	Sort Sequence by Service	92
V-4	WIMM SSR Processing Phase Sequence of Major Events by WIMM Service	97

<u>Figures</u>		<u>Page</u>
V-5	CIMM Part Number SSR Processing Sequence of Major Events by CIMM	106
V-6	SICC SSR Advice Processing Phase Sequence of Major Events by SICC	115
V-7	TCC/SSR Transaction Relationships	122
V-8	SSR Change Transaction Volumes	124
V-9	Sample NIMSR	129

CHAPTER I
INTRODUCTION

A. THE STUDY ASSIGNMENT

1. Background

In August 1972, the Deputy Assistant Secretary of Defense established a study of Item Logistics Management Data (ILMD) in the Department of Defense (DoD). The term ILMD encompassed that data related to requests for supply support, cataloging data for item identification, catalog management data, and data distributed in change notice procedures. The following functional areas were reviewed:

- : Provisioning procedures and schedules
- : Provisioning technical documentation
- : Item screening procedures
- : Supply support requests
- : Item management coding and classification
- : Cataloging

The ILMD Study (Appendix D, Reference 1) concluded that there were multiple regulatory procedures, formats and data elements that had an adverse effect upon Inventory Control Point (ICP) supply support operations, and recommended that these procedures (Appendix D, References 2 to 8) be combined into one DoD manual. These procedures were revised and consolidated, and are contained in DoD 4140.26M (Appendix D, Reference 9), which was coordinated and approved for implementation by the Military Services, Defense and Civil Agencies (hereinafter referred to as Components) through the DoD Special Projects Group (SPG) for provisioning with a scheduled implementation date of 1 May 1978.

The SPG is composed of members from the Military Services, Defense and Civil Agencies, and a chairman from the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics) (ASD(MRA&L)). The group meets on an ad hoc basis upon the request of the chairman. Agenda are usually prepared in advance of the meetings and outline material to be discussed during the meetings. Topics related to provisioning are considered. Problems being experienced in provisioning or related areas are

discussed and potential solutions are developed. The SPG is the primary forum for discussion, development, and coordination of policy, procedures and specifications governing the provisioning of end items of equipment in the Department of Defense.

Subsequent to the coordination of the new procedures, and prior to implementation, potential problem areas in the processing of supply support requests (SSRs) which could have an adverse effect upon supply support of new systems surfaced. During meetings of the SPG, it was alleged that SSRs were not being processed in a timely manner necessary to ensure effective and efficient supply support of end items of materiel.

2. Problems

Problems were reported in the areas of SSR transmission times and excessive reject rates which delay vital supply support. Also, it was felt that there was a lack of effective management control systems to monitor and control the overall SSR process. Problems related to SSRs identified by the SPG include:

- : Extended transmission times
- : Delinquent SSRs
- : Excessive number of rejects
- : Inadequate controls
- : Deficient management reports

These types of problems are related to the systems developed by SSR submitters and receivers to implement the standard DoD procedures, formats and data elements. It was thought that publication of the new procedures alone would not necessarily correct the types of problems being experienced. These problems were considered so significant that the SPG recommended that a study be conducted by an independent organization to ensure an impartial review and analysis of the various SSR systems.

3. Tasking

By memorandum dated August 17, 1977, the Deputy Assistant Secretary of Defense (Supply, Maintenance and Services) established a Department of Defense Study to conduct a comprehensive review and analysis of the supply support request systems. Appendix A contains a copy of this memorandum including a statement of the study requirements.

The Director for Supply Management was assigned as the primary study sponsor responsible for:

- : Study definition and scope
- : Objectives
- : Study assignment and tasking
- : Monitoring study progress
- : Receipt, coordination and implementation of study results.

The Defense Logistics Analysis Office (DLAO) was assigned to conduct the study. Responsibilities of the study office include:

- : Determining, requesting, obtaining or supplying resources to perform the study.
- : Development and application of study methodology including identifying, collecting, obtaining or developing data/information and techniques to analyze systems and evaluate alternatives for accomplishment of the study objectives.

The military departments and defense agencies were requested to designate their SPG representatives as the study point of contact to coordinate study group requirements for briefings, information, visits and service/agency participation in the study effort. It was felt that this would facilitate the conduct of the study since the SPG members are knowledgeable in the functional areas under study, had a primary interest in the study due to their participation in the problem definition and their role in the recommendation for the assignment of the study.

4. Purpose → The purpose of the study was to identify problems associated with the systems for generating, transmitting, processing and controlling SSRs in order to develop systems and procedures improvements to promote effective and efficient supply support of DoD equipments.

5. Objectives

→ The objective of the study was to increase the effectiveness and efficiency of supply support through:

- (1) Decrease in supply support request transmission and processing times,

- 2 Reduction in rejection and delinquency rates, and
- 3 Improvements in systems and procedures for generating, transmitting, processing and controlling SSRs.

These objectives are goal oriented towards the correction of problems associated with the SSR system.

6. Scope

a. Definition. Supply support requests for the purpose of the study include all data or information required to request and obtain supply support for end items whether for provisioning or nonprovisioning requirements. The definition was purposely broad to permit the study group freedom to explore all vehicles actually being used to request and obtain supply support. The rationale behind this is that if methods other than those contained in the SSR manual are being used, they should be evaluated to determine if they are more effective or efficient, or whether prescribed procedures are deficient. This definition is subject to refinement during the course of the study.

b. Inclusions. The study involved supply support for consumable items subject to item management assignment procedures in accordance with the Defense Integrated Materiel Management Manuals (Appendix D, References 4 and 9). Both commodity and weapons system oriented consumable items are in this category.

c. Exclusions

Items not subject to item management assignment in accordance with these manuals are excluded from the study. Excluded items are:

- : Medical Material
- : Clothing and Textiles
- : Subsistence
- : Ammunition
- : Fuels

Review and analysis of computational formulas for the range and depth selection of quantities of items was also excluded. Policies and procedures for the determination of initial requirements for secondary item spare and repair parts contained in DoDI 4140.42 (Appendix D, Reference 10), were specifically excluded from the study by the study sponsor.

However, as a natural part of the review of the SSR processes, the study group was chartered to consider the criteria and timing of when an SSR would or would not be generated, the parameters and conditions governing the types of SSRs to be submitted, and methodology of generation and submission.

d. Research. The study group was chartered to review and analyze the SSR pipeline from generation through completion of processing of SSRs. Research was performed on systems types, systems characteristics and organizations involved in the study problem.

(1) Systems Types. A system may be comprised of a number of subsystems or components, which may come into play at any time from the initial creation of an SSR until its ultimate completion. It was the intent of the SSR study to research each of the different types involved in the SSR processes from the beginning to end. The study requirement stratified SSR systems into five basic types:

- : Generating
- : Transmittal/Communication
- : Processing
- : Control
- : Management

(2) Systems Characteristics. A system does not usually operate independently of other systems; therefore, the study was also concerned with other systems that interfaced with SSR systems to the extent other systems were considered to have a significant impact on the SSR system. The scope of the research dealt with the basic elements of a system such as:

- : Procedures
- : Inputs/outputs/files
- : Formats/content/data elements/codes/definitions
- : Media/mode/timing/techniques

(3) Organizations. All DoD and Federal Components using the DoD procedures contained in the DoD Integrated Material Management Manuals were subject to the study. The principal organizations using the manuals in addition to DoD are the General Services Administration (GSA) and Coast Guard.

7. Assumptions

There was only one assumption placed in the study requirement by the study sponsor. The study requirement stipulated that there will be a single DoD manual with one set of formats, document identifiers, procedures and codes for the interchange and processing of supply support requests. This condition was imposed because of the problems caused by multiple directives, formats and codes which resulted in the recommendation for a single DoD manual for SSRs by the ILMD study.

It was not intended that this would preclude the study group from establishing additional assumptions associated with the approach and methodology used in the conduct of the study.

B. APPROACH

The general orientation of the study approach was influenced by the description of the problems and objectives in the study assignment. The study group set out to develop a research plan that would permit an analysis of the problems reported in consonance with an overall review of SSR systems to accomplish the objectives of the study. A three-point plan was developed to accomplish this action. The main thrust of the study was to perform a complete systems analysis due to the nature of the problems brought up by the SPG. These problems appeared to be systems rather than procedurally or organizationally oriented. The systems analysis covered the design, development and implementation of systems to implement the SSR policies and procedures contained in DoD 4140.26M, Vol 1. The systems analysis was supplemented by an evaluation of the effectiveness of these systems coupled with a problem analysis of SSR problems reported from any source involved in supply support.

1. Study Team Composition

Three basic types of expertise were required to perform the study as planned; logistics systems analysts to provide the broad logistics systems knowledge pertaining to SSRs in the logistic environment, computer systems analysts to provide the capability of analyzing automated data processing systems for SSRs and operations research analysts to permit an evaluation of the effectiveness of competing systems. The initial staffing of the study team was developed from a blend of a combination of these skills to complement and balance each other with an experienced study leader as director. Staffing of the immediate study team is shown as follows:

<u>Position</u>	<u>Grade/Rank</u>
Study Director	GS-15
Logistics Systems Analyst	Lieutenant Colonel
Logistics Systems Analyst	GS-13
Computer Systems Analyst	GS-13
Operations Research Analyst	GS-13

However, a study of this magnitude could not be accomplished without augmentation and assistance to the basic study team. Figure I-1 below provides a better picture of the total team concept employed by the Department of Defense Supply Support Request (DODSSR) Study Team.

THE TEAM

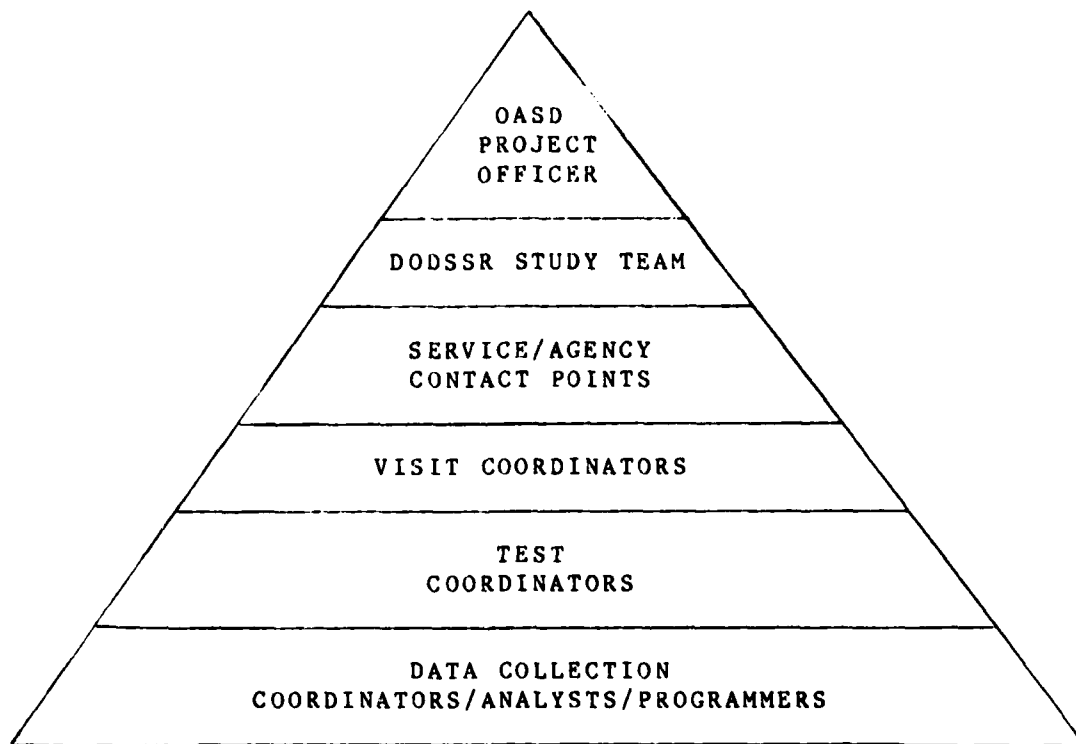


Figure I-1

The DODSSR Study Team can be viewed as a pyramid. The basic team with staffing as described above represents the nucleus as depicted by the second layer. The immediate team is supported by study coordinators, analysts and programmers from the headquarters, systems design, operating and administrative services levels from the Military Services, Defense Logistics Agency (DLA) and the General Services Administration (GSA). Assistance was provided to the DODSSR Study in accomplishing our headquarters and field research, the conduct of our tests and completion of our data collection and analysis. Participation commenced with the SPG members who coordinated study requirements from the beginning of the study through our visits to systems design and operating activities and completion of our quantitative analysis. The pervasiveness of this participation extended throughout the study and is considered unprecedented.

2. Study Phases

Originally the study requirement provided for a short and a long range phase of study. The short range was intended to permit early identification of those changes that were required to be made to permit a working implementation of the draft SSR procedures that were scheduled for implementation on 1 May 1978. This phase would then provide the foundation for the accomplishment of Phase 2. Problems to be researched and corrected during Phase 1 were to be identified by the SPG and presented to the study group for resolution.

During the SPG meeting of 6-7 October 1978 no operational problems requiring immediate attention were identified or presented to the study group for research. The consensus of the SPG members was that the new system would have to be tested, installed and some operational experience gained prior to identifying problems with either the procedures or the systems developed to implement the procedures. The short range research was then abandoned and the study team proceeded to conduct the study in accordance with normal study procedures.

Seven study phases were established to accomplish the general plan of study. These phases were intended to permit research to progress from the general to the specific to provide a detailed understanding of SSR systems and associated problems, and consisted of the following segments:

- : Background/document research
- : Headquarters policy level review
- : Systems design review

- : Operational implementation review
- : Data collection and analyses
- : Synthesis
- : Final evaluation and report preparation

These phases were pursued in the general chronological order shown. Some of these phases necessarily overlapped in whole or in part. The most notable areas of overlap were in systems design review, operational implementation review, and data collection and analyses. Explanation and discussion of these phases will be covered more fully under methodology below.

C. METHODOLOGY

1. Concept

Study research was directed towards accomplishing the objectives as stated in the study requirement. In this sense the study can be considered goal oriented. In order to identify problems, develop solutions to the problems and create improvements to result in a more effective and efficient system, the study group set out to obtain a thorough understanding of the supply support concept in general and supply support requests in particular. The basic approach was to determine the basic rules for submitting and requesting supply support and to trace supply support requests from the initial generation and submission of the requirement until the acceptance or rejection of the requirement.

The "Systems Approach" (Appendix D, Reference 11) was adopted as the basic research methodology, which requires that there should be a plan for conducting a systems study that borrows liberally from the scientific method and dictates that problems be analyzed both functionally and operationally. Problems are looked at as potential systems requiring input, processing, output, control and feedback.

The systems approach requires that a problem be attacked in an orderly way. The problems must be properly identified, appropriate boundaries drawn, investigated and models of the systems developed. The models are then analyzed and evaluated in terms of systems requirements as stated by goals and standards for accomplishing various actions.

A system has been defined as an array of components designed to achieve an objective according to a plan (Appendix D,

Reference 12). One of the best ways of depicting a system is the abstract depiction of an automatic data processing system by Anthony Oettinger (Appendix D, Reference 13) as shown in Figure I-2 below.

TYPICAL SYSTEM

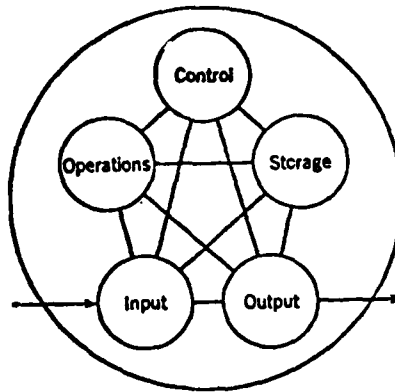


Figure I-2

Note that the system as depicted in Figure I-2 above has five basic components. This picture can be used to describe any basic system whether manual, automated or a combination. SSRs were viewed as a system and each of its component parts were studied separately as well as in terms of their relationships with other systems components.

The procedure employed was to determine the requirements of the SSR system, the products the system was producing, and to evaluate these in terms of the functions being performed and the organizations designing and using the systems.

A number of study techniques were developed by the team of logistics, systems, computer and operations research analysts. This team utilized their diverse but complementary skills to apply different tools of analysis to the problems being studied. The intent was to look at things in different ways and to compare the research results. This technique provided a vehicle to permit both reinforcement for critical conclusions and recommendations, and acts as a check and balance system to ensure the validity of study results.

2. Study Techniques. This section contains a brief synopsis of the essential tools of analysis used during the course of the study. It is not meant to be exhaustive or to provide complete coverage of all types of research and analysis employed. It is intended to give the reader a general understanding of the course of the study to permit easier comprehension of the material contained in succeeding chapters.

a. Policies and Procedures Review. The study group commenced the first phase of the study performing background and document research of all known documents, including directives, regulations, instructions, manuals, containing policies or procedures relating to SSRs. This was supplemented with briefings by the headquarters level organizations of the Components to gain an insight in policies and procedures as understood and promulgated by the Components and to determine their respective management philosophies.

b. Systems Design Analysis

Once the study team had obtained a background in SSR policies and procedures, the next step was to review the design of the systems that were developed by the Components to implement SSR requirements. Systems design review was performed by reviewing requirements specifications and discussing the design of systems by the Systems Design Activities (SDAs) to implement these specifications. Each of the Component SDAs were visited to receive briefings on SSR and related applications and copies of documentation describing the design of these systems.

Study analysts prepared flow charts of the Component systems design based upon documentation and briefings received from the SDAs. Generally, three levels of flow charts were prepared; systems overview, subsystems and application. The systems overview shows the relationships among subsystems such as provisioning, cataloging, technical or requirements. A subsystem chart depicts the relationship and interaction of applications and an applications chart shows the flow of data among programs.

These charts were then used to describe and analyze systems design. The charts also served as a road map during our operational implementation review to determine the extent and degree of implementation of systems as designed by the SDA.

The following SDA activities were visited during the course of the study.

<u>Component</u>	<u>Activity</u>
Army	Automated Logistics Systems Management Activity (ALMSA)
Navy	Fleet Material Support Office (FMSO)
Air Force	Sacramento Air Logistics Center (SMALC) Ogden Air Logistics Center (OOALC)
Marine Corps	Marine Corps Logistics Support Base Atlantic (MCLSBA)
Defense Logistics Agency	Defense Logistics Agency Systems Automation Center (DSAC)
General Services Administration	General Services Administration Headquarters

c. Operational Implementation Review

After completion of the initial review of SSR systems design, the study group visited operational activities to review SSR systems in operation. The study group had obtained a framework of SSR requirements and a knowledge of the design of systems to implement SSR requirements; there was then a need to see how well the system design concept was actually working in practice.

Representative activities were selected from each of the Components. Activities visited are shown below:

<u>Component</u>	<u>Activity</u>
Army	Tank-Automotive Materiel Readiness Command (TARCOM) Troop Support and Aviation Materiel Readiness Command (TSARCOM)
Navy	Ships Parts Control Center (SPCC)
Air Force	Sacramento Air Logistics Center (SMALC) Ogden Air Logistics Center (OOALC)
Marine Corps	Marine Corps Logistics Support Base Atlantic (MCLSBA)
Defense Logistics Agency	Defense Construction Supply Center (DCSC) Defense Electronics Supply Center (DESC) Defense General Supply Center (DGSC)
General Services Administration	Federal Supply Service, Washington, D.C.

These activities represent a sample of the total spectrum of the SSR process. Operational activities can be classified into two general categories; submitters and receivers of SSRs. A submitter is a Service Item Control Center (SICC) who requests supply support from an Integrated Materiel Manager who is classified as a receiver. The study group visited both types of activities during the field research of operational activities.

The purpose of these visits was to obtain an understanding of the organizational elements, functions and systems affecting methods of requesting and obtaining supply support.

The visits were conducted in two parts. First, the study group received briefings describing the SSR system as the operating activity understood it. These briefings covered the organizational elements performing the provisioning, cataloging and supply support functions; a work flow description of supply support processing from preparation or receipt through completion; and an overview of data systems related to processing and controlling SSRs.

The second part of the visit consisted of an operational review of the implementation of the system as designed by the SDA. Using the briefings from part one as a guideline, the study team performed an on-site visit with operational personnel directly responsible for implementation and processing of SSR systems and procedures at the working level in the actual operational environment. Study analysts traced SSRs through their life cycle, including all major functions, events, processes, organizations and work stations for both incoming and outgoing SSRs.

After completion of the visit, the team prepared charts describing the SSR system from an operational basis. Three types of charts were prepared (1) organization charts, (2) event charts, and (3) work process flow charts. Through the use of these charts the team could model the operational system, by considering the SSR process as a network. This model of the network was then used to understand and analyze the SSR system in terms of its events, work stations, organizations, functions and processes.

d. Quantitative Evaluation

The purpose of the quantitative evaluation technique was to apply an objective methodology to the analysis and evaluation of the SSR system in order to determine the relative efficiency/effectiveness of SSR processing. During the headquarters and field level research the Components were asked how they

measured the effectiveness and efficiency of their SSR systems, what goals or standards had been established and what management reports were produced to quantitatively measure attainment of these goals.

The standard reply was to the effect that there were no established goals and standards other than a general reference to the SSR manual; and there were no existing quantitative measures of their SSR systems. There were no management reports available to the management levels at headquarters or the operation level activities that could be used to determine the performance of their systems against SSR goals and standards.

The study group discussed the lack of availability of management reports with the chairman and members of the SPG. The study group expressed their desire to perform a quantitative evaluation of the SSR system and requested approval of a plan to collect and analyze SSR transactions. Authority was granted to the study group to prepare an evaluation plan and to establish a data collection and analysis system. The development and accomplishment of this plan will be discussed in detail in Volume III of this Report.

e. Problem Identification

As part of our overall systems approach to the conduct of this study, the study group tried to identify actual or potential problems in the SSR system. The intent was to expand upon the initial problems contained in the study plan as reported by the SPG. The Components were asked during headquarters level research, field research and during SPG meetings to document and provide to the study group any problems being experienced or foreseen; and to recommend changes to the SSR systems and procedures to correct these problems or otherwise improve SSR processing.

These problems were collected during the course of the study and considered in conjunction with other techniques of analysis. The problem identification and analysis technique will be treated more fully in Chapter III of Volume I.

f. Tests. Another technique of analysis used by the study group was the use of tests to analyze specific propositions or hypotheses. Two tests were established by the study group. The first test was to determine the feasibility of transmitting and receiving SSRs over AUTODIN and the feasibility of electrical transmission of technical data using telecommunications. The other test was a validation test that processed sample SSR transactions through the Component's actual validation programs in the test mode. These tests are discussed in Volume III.

g. Questionnaires. Questionnaires were used to supplement other types of analyses. They were used to obtain information not available from other sources, find out if certain information was being used, how certain processes were being accomplished and to solicit opinion. Three types were used; a problems/ recommendations opinion survey, validation analysis and data element usage questionnaire. The questionnaires were integrated into Volumes II and III of the Report.

D. REPORT ORGANIZATION AND FORMAT

1. Terminology

Generally standard terms as used in the fields of logistics, systems, data processing, mathematics and statistics will be used. References to and use of definitions of terms contained in DoD publications or directives will be made whenever possible.

A list of all acronyms used in this Report are contained in the appendices for ready reference.

Specialized terms will be defined in place where first used. Definitions that are considered new or that have been developed by the study group will be highlighted and fully defined in the section of the report where they are described.

2. References

A common referencing scheme will be used throughout the report. A reference will be assigned a number the first time it is used in the Report. Thereafter the number assigned to the documentary reference will be used. A list of all cited references may be found in the appendices.

During the course of the study numerous publications and documents were researched. Many of these, while not specifically referred to in the report, have been used during the course of the study. References that have not been cited in the report, but are considered of major significance will be listed in the bibliography contained in the appendices.

3. Report Outline. The Report has been divided into three volumes because of the complexity of the study and the range and depth of research and analysis.

a. Volume I - Basic Report. Volume I is the basic report and contains the study assignment and describes the study approach, methodology, and research techniques used throughout the course of the study. A description of the functional requirements of the system are presented and a conceptual system is depicted to provide the reader with the basic knowledge required to have an understanding of the analysis, conclusions and recommendations presented. The analysis, conclusions and recommendations are based upon the detailed research presented in Volumes II and III.

b. Volume II - Systems Design and Implementation. Volume II contains the results of the detailed systems design and operational implementation research. Part I provides a description of systems designed by each of the Components to implement the functional requirements presented in Volume I. Part II describes the operational systems actually implemented by the Components at the time of the study. The conceptual system is used as a basis of understanding the design and implementation of systems in terms of the functional requirements.

c. Volume III - Performance Evaluation. Volume III discusses the quantitative evaluation of the SSR system, the AUTODIN/TELEFAX Test and the Edit/Validation Analysis.

4. Appendices. The appendices contain material which is considered reference documentation or study material developed by the study group during the course of the study that is considered of major importance but is too lengthy to be included in the main body of the report.

5. Report Orientation. The report is written for the upper, middle and operational management levels. As such, some readers may receive varying degrees of perception, understanding and detail. Those readers, who desire to know only what the assignment was and what the results were, may wish to limit their reading to Chapters I and VI of the basic report, Volume I. Middle level managers may wish to read the basic report in its entirety to obtain an understanding of the management environment, system requirements and the comparative analysis of the policy, procedures, systems design and implementation. For those desiring a more complete review and understanding of the supply support scenario, we commit to an exhaustive reading of the detailed research in Volumes II and III in addition to the basic report.

CHAPTER II
MANAGEMENT ENVIRONMENT

A. POLICY

The management environment consists of the policies, procedures, organizations and functions needed to design, develop and implement systems necessary to accomplish supply support request (SSR) processing. The basic policies, principles and objectives governing supply support in the Department of Defense (DoD) are contained in four DoD Directives.

- : DoD Directive 4100.35
- : DoD Directive 4000.19
- : DoD Directive 4140.26
- : DoD Directive 5030.47

These directives provide the overall authority for implementing policy and procedures contained in other DoD Instructions and Manuals.

DoD Directive 4100.35 (Appendix D, Reference 14) establishes policy and assigns responsibility for carrying out the integrated logistic support program as an integral part of the acquisition process for the life cycle support of systems/equipments procured by DoD Components. Integrated logistic support is defined as the composite of all the support considerations necessary to assure the effective and economical support of a system for its life cycle. Supply support is one of the principal elements of integrated logistic support.

Basic policies and principles for interservice, interdepartmental and interagency support are contained in DoDD 4000.19 (Appendix D, Reference 15). This directive specifies that each DoD Component is responsible for providing supply support for its own forces or arranging common supply support with other Components in accordance with the responsibility for performance of such support as assigned by the Secretary of Defense.

Responsibilities for performance of supply support for consumable items are designated by DoDD 4140.26 (Appendix D, Reference 16), through integrated materiel management assignments. These assignments are made under the concept that there will be only one wholesale manager for any consumable item used in DoD.

This Directive provides criteria for the assignment of consumable items to the Military Services and Defense Agencies for integrated materiel management. Integrated materiel management encompasses the exercise of total DoD or Federal Government management responsibility for a Federal Supply Group/Federal Supply Class (FSG/FSC), commodity or item by a single Component. Normally, it includes computation of requirements, and the functions of funding, budgeting, storing, issuing, cataloging, standardizing, and procuring. This Directive also authorizes the Defense Logistics Agency to develop and publish a manual in concert with other DoD Components to provide implementing policy and procedures for the integrated materiel management of consumable items throughout DoD.

DoDD 5030.47 (Appendix D, Reference 17) delineates the responsibilities and relationships between the General Services Administration (GSA) and DoD for integrated materiel management. The Defense Logistics Agency acting under the mission assigned by DoDD 5105.22 (Appendix D, Reference 18) is assigned the responsibility for development of implementing policies and procedures for supply support under the National Supply System Concept.

These DoD Directives establish the authority and framework for the development of implementing policy and procedures for the integrated materiel management of consumable items not only throughout DoD, but for the Federal Government.

B. PROCEDURES

Procedures for requesting and obtaining supply support are contained in a number of documents. The principal document is the Defense Integrated Materiel Management Manual for Consumable Items (Appendix D, Reference 9). This manual is published and maintained by the Defense Logistics Agency under the authority of DoDD 4140.26 (Appendix D, Reference 16). This manual was developed by DoD Task Groups established to implement the recommendations of the Item Logistics Management Data (ILMD) Study.

The manual covers two main functional areas, the assignment of integrated materiel management responsibilities among DoD Components for classes of items through the use of Item Management Coding (IMC) criteria and the use of SSRs to request and receive supply support. Hereinafter this manual will be referred to as the IMM Manual. References to IMC procedures or SSR procedures will refer to those contained in the IMM Manual unless another specific citation is made. IMC and SSR procedures are interrelated; this will be explored more fully during the course of this Report.

There are a number of other documents that contain policies, criteria or procedures for the submission of SSRs, despite the intent of the ILM Study to eliminate the duplication of SSR procedures. These documents are discussed in Volume I, Chapter V.

C. SUPPLY SUPPORT CONCEPT

The requirement for supply support generally derives from provisioning of end items of materiel as described in DoD directives for provisioning (Appendix D, References 5 and 19). Provisioning is the management process for determining and acquiring the range and depth (quantity) of support items necessary to operate and maintain an end item of materiel for an initial period of service. During the provisioning process, the Military Services determine items required to support the equipment and the method of support for these items. Figure II-1 pictorially portrays the supply support process in the form of a supply support tree.

1. Item Selection/Coding. The supply support process commences during the item selection and coding processes as indicated in the top block in the chart. At this time the provisioning activity determines maintenance significant items and applies Source, Maintenance and Recoverability (SM&R) Codes in accordance with the Joint Regulation governing the use and application of SM&R Codes (Appendix D, Reference 20). Items that are maintenance significant and source coded in the P-series, are reviewed and IMC applied. P-series codes are applied to those items that are being recommended for procurement action.

2. Method of Management. As a result of IMC, the provisioning activity determines if the item is to be retained by the provisioning Service or managed by an IMM. IMC is accomplished in accordance with the criteria contained in the IMM Manual. If the item is Service retained, supply support for the item flows through the branches on the left side of the tree in Figure II-1.

3. Retained Items. The provisioning activity must then determine if a Service retained item will be managed by the provisioning activity itself referred to as the Program Inventory Control Point (ICP) or whether it will be managed by another activity in the same Service referred to as the Support ICP.

a. Program ICP. The Program ICP block of the third tier represents those items that are managed by the program inventory control point or provisioning activity. There are four general categories of retained items that will be managed by the provisioning activity.

SUPPLY SUPPORT TREE

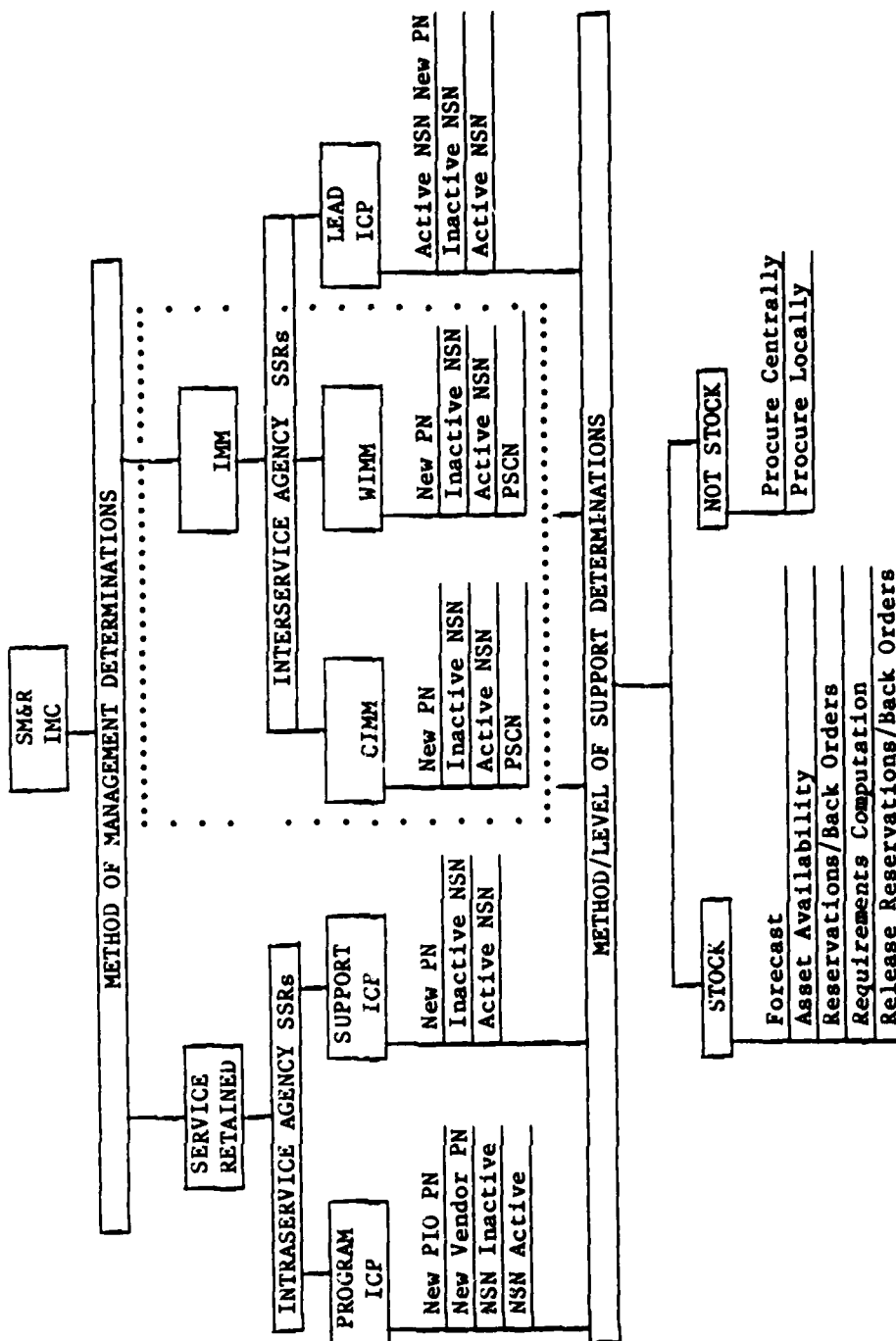


Figure 11-1

(1) New PIO PN. Part numbered items that cannot be associated with an existing National Stock Number (NSN) and are manufactured by the equipment manufacturer will generally be procured on a Provisioned Item Order (PIO).

(2) New Vendor PN. Part numbered items are items that cannot be associated with an existing NSN and are not manufactured by the equipment manufacturer. The items may be procured on a PIO or directly from the vendor used by the equipment manufacturer or another vendor.

(3) Inactive NSN. The part number cross references to an NSN for which there is no current recorded user.

(4) Active NSN. The item of supply has an active stock number that is managed by the provisioning activity.

b. Support ICP

The Support ICP is another ICP of the same Service that is responsible for providing supply support for certain types of items for that Service. Generally, management of items within a Service are assigned on an FSC basis for commodity oriented consumable items or an item basis for weapons oriented items that are Service retained.

The Program ICP must request support from the Support ICP. Although the DODSSR procedures do not require it, some of the Services use the DODSSR procedures to request support and others use their own intraservice procedures and formats. This will be discussed in more detail in Volume II.

As is the case with Program ICP managed items, both part number and NSN items may be supported by a Support ICP. However, some Services provide that any new retained item entering the system will be managed by the Program ICP. Support ICPs do not generally procure on the prime contract, although the Air Force has provisions for the Support ICP to request the Program ICP to procure on the end item contract.

4. IMM Items

Items that meet the criteria for IMM are considered candidates for requesting supply support from an IMM. If a support item meets the criteria for IMM as stated in the IMM Manual and the Service individual requirements computation criteria for support of the end item being provisioned, the provisioning activity will request supply support from an IMM. There are a number of different ways to request supply support. Different methods are discussed in Chapter V, Volume I, and Volume III.

There are three different types of IMM assignments; CIMM, WIMM, and Lead ICP.

a. CIMM Items

A Commodity Integrated Materiel Manager (CIMM) is an activity or agency designated to exercise integrated materiel management at the wholesale level for a commodity oriented FSG/FSC or item on a DoD or Federal Government-wide basis.

Both part number and NSN items may be forwarded to an IMM for supply support. Another category includes items with a permanent system control number (PSCN). A PSCN is a unique control number assigned by the Defense Logistics Services Center (DLSC) in the functional program area of standardization to enable establishment and mechanized processing of data associated with an item which does not qualify for assignment of an NSN. At such time as an item with a PSCN qualifies, an NSN will be assigned.

There are very few items with PSCNs forwarded to IMMs for supply support. Statistics on the volume of these items are presented in Volume III.

b. WIMM Items. A Weapons Integrated Materiel Manager (WIMM), is a Service ICP that performs DoD or Federal Government-wide wholesale integrated materiel management functions for assigned items. Current SSR procedures permit both NSN and part number items to be submitted for supply support. Part numbered items are restricted to joint service provisioning actions for WIMM items.

c. Lead ICP Items. Lead ICP items are nonconsumable items covered under the joint regulation for elimination of duplication of management of nonconsumable items (Appendix D, Reference 21).

5. Support Determinations. Regardless of the method of management, i.e., Service or IMM, supply support determinations must be made. Two basic determinations performed by the manager are method of support and level of support.

a. Method of Support. Method of support involves the determination of whether the item will be stocked or not stocked in the supply system, and whether the item will be centrally or locally managed. Acquisition advice codes (AACs) will usually be assigned to reflect these management determinations.

b. Level of Support. Level of support involves the determination of the depth or quantity of items to stock. If

an item is stocked; the manager must forecast requirements, determine the availability of assets, perform requirements computations, and establish and release backorders to complete the supply support process.

6. Supply Support Boundary

A synopsis of the supply support concept in order to show where SSRs fit in the total supply support picture. The main thrust of this study is depicted by the boundary as shown by the dotted line in Figure II-1. The primary concentration of the study was on SSRs for CIMM and WIMM items in accordance with the IMM Manual.

The study group was granted authority by the Special Projects Group (SPG) for Provisioning to review other types of supply support requests. These "SSRs" were reviewed on a general basis for comparison purpose only. Intraservice "Supply Support Requests" were reviewed to determine to what extent the DODSSR procedures were being used for intra as well as interservice use. Nonconsumable items were also reviewed because they represent a purely manual system similar to the system that was used prior to May 1976 for nonprovisioning SSRs. In addition, the study group wanted to determine the relative volume and similarity of Nonconsumable Item Materiel Support Request (NIMSRs) to SSRs.

D. ORGANIZATIONS

The organizations responsible for planning, designing and implementing SSR systems also have an impact upon SSR processing through the organizational placement of related SSR functions. As shown in Figure II-2, there generally are three types of organizations involved; headquarters, systems design activities (SDAs) and operating activities.

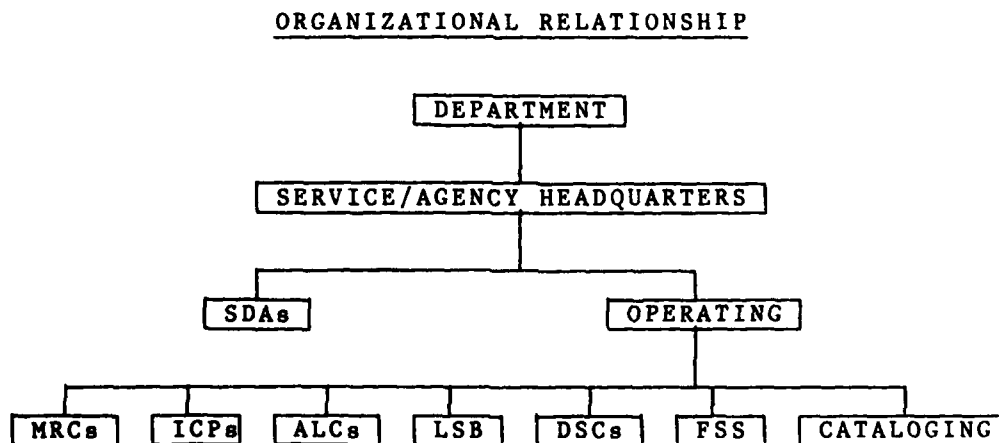


Figure II-2

1. Department

The Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics)(ASD(MRA&L)) and the General Services Administration, Federal Supply Service (GSA-FSS) promulgate the policy, objectives and general procedures for SSRs and related functions. The policies and procedures contained in the IMM Manual have been jointly agreed to by DoD and GSA.

The Directorate for Supply Management Policy in ASD(MRA&L) is responsible for the IMM Manual. The SSR portion of this manual comes under the Supply Policy and Programs Division and the IMC portion of the manual comes under the Materiel Management Systems Division.

The Federal Supply Service, Office of Customer Service and Support, is the responsible organization in GSA for both IMC and SSR procedures in the IMM Manual.

The general functional requirements statement for SSRs is contained in Chapter IV and Appendix E of the IMM Manual. The IMM Manual provides implementing policy and procedures for the preparation, processing, and control of SSRs to provide supply support in accordance with the support concept described above. The procedures are applicable to each Service as a WIMM or Service Item Control Center (SICC), and to all CIMMs under the integrated management concept for multiservice used weapon systems oriented consumable or commodity oriented items.

Responsibilities and tasks are assigned and outlined by SICC and IMM. The usage of the term SICC denotes the provisioning activity or SSR submitter and IMM designates the CIMM or WIMM as receiver or processor of the request for supply support. The major functional tasks assigned to submitters and receivers are outlined under functions below.

2. Service/Agency Headquarters

The Service/Agency Headquarters elements are generally responsible for the development of the detailed functional requirements statements used to implement the policies and procedures issued by the departmental level. In some cases the responsibility for the functional requirements statement may be delegated to a lower organizational echelon. The functional requirements statement or specification provides guidance to the SDAs for the development of systems to implement requirements for SSR processing in accordance with the conventions specified in the SSR Procedures.

Appendix E of the SSR Procedures provides conventions for the preparation and submission of SSRs including mechanized formats and detailed procedures for entry of required data elements and codes for SSR transactions. These conventions are the rules governing the preparation, submission, processing, and control of SSRs. These rules provide the vehicle for the design of systems to implement the functional requirements as stated in SSR policies and procedures.

Functional requirements specifications may vary a great deal in terms of degree of generality or specificity among Services/Agencies. In some cases the Headquarters level will prepare a general or conceptual requirement and, in others, a detailed requirement will be developed specifying inputs, outputs and procedures in great detail. Organizational placement of like functions may vary widely among the Components.

a. Army

The Department of Army Materiel Development and Readiness Command (DARCOM) is the official point for the development of functional requirements statements; however, some of these duties have been delegated to the Catalog Data Agency (CDA) in New Cumberland, Pennsylvania. In addition to the functional responsibility for SSRs, CDA has the functional responsibility for IMC programs, item identification data and cataloging. Functional responsibilities for provisioning and requirements determination remain at DARCOM Headquarters in the Directorate for Materiel Management (DMM). The Associate Director for Maintenance in DMM has the assignment for provisioning while the Associate Director for Requirements and Resources has the assignment for requirements determination.

The DODSSR Study assignment requested the Components to designate their SPG member as the Component contact point for the study. DARCOM participation in the SPG is the functional responsibility of the Maintenance Directorate in DARCOM. However, since the functional responsibility for SSRs is assigned to CDA, DARCOM designated CDA as the DARCOM point of contact for the DODSSR Study.

Although the responsibility for developing functional specifications for system design has been assigned to CDA, operational control of the functional elements at the SDA and operating activities implementing the system is retained at DARCOM.

b. Navy. The Naval Supply Systems Command (NAVSUP) is responsible for development of functional requirements for the Navy. The Deputy Commanders for Fleet Support and Supply Operations, and Plans, Policy and Programs Development are responsible

for SSR and related functional areas. The Provisioning, Configuration and Allowance Branch of the Integrated Logistics Support Division of Supply Operations is responsible for implementation of policy and development of functional requirements statements for provisioning and supply support requests. Representation to the SPG is also provided by this organization. Item identification, IMC and cataloging is the functional responsibility of the Technical and Interservice Program Branch of the Logistics Plans and Policy Control Division under the Deputy Commander for Plans, Policy and Programs. Responsibility for requirements determination processes come under the Operations and Inventory Analysis Staff of the Deputy Commander of Plans, Policy and Programs.

c. Air Force

The Air Force Logistics Command (AFLC) is responsible for the development of functional requirements for Air Force applications. The Deputy Chief of Staff/Logistics Operations is organizationally responsible for SSR and related functions as outlined above. However, these functions are spread among a number of different offices or directorates. The Interservice and Interagency Support Office served as the Air Force office of primary responsibility for the IMM Manual. This includes both SSR and IMC procedures. Provisioning functions are performed by the Provisioning and Data Management Branch; item identification by the Materiel Identification Branch; and cataloging by the Cataloging Office of the Directorate of Logistics Management. Requirements determination is the responsibility of the Directorate of Materiel Requirements.

AFLC SPG representation is provided by the provisioning organization. However, the contact point for the SSR Study assigned by AFLC was from the Interservice and Interagency Support Office.

d. Marine Corps. The Material Division of the Deputy Chief for Installations and Logistics is responsible for developing policy to implement SSR and related functions. The Marine Corps Logistics Support Base, Atlantic (MCLSBA) at Albany, Georgia, has been delegated the responsibility for developing functional specifications for the design and development of systems to accomplish these functions.

e. Defense Logistics Agency

There are two directorates in DLA Headquarters responsible for SSR and related functions: the Supply Operations Directorate and the Technical and Logistics Services Directorate. Requirements specifications for SSRs and IMC are developed by

the Logistics Programs Division of the Supply Operations Directorate. Requirements determination is the functional responsibility of the Supply Management Division of the Supply Operations Directorate.

The Logistics Programs Division provides representation on the SPG and is responsible for coordination of DLA policy for provisioning in coordination with other Federal Components. In addition, this organization is responsible for the administration, coordination and publication of the IMM Manual containing DoD policy and procedures for SSRs and IMC. This includes responsibility for implementation of the IMM Manual by DLA.

The Cataloging and Technical Information Division of the Technical and Logistics Services Directorate provides policy guidance for item identification and cataloging functions; however, the DLA Systems Automation Center (DSAC) has been delegated the responsibility for preparing requirements specifications for these functional areas. Although the Supply Operations Directorate has the functional design responsibility for SSRs and IMC, the operating elements at the Defense Supply Centers using the systems under the design control of Supply Operations are under the operational control of the Technical and Logistics Services Directorate.

f. General Services Administration

The Assistant Commissioner for Customer Service and Support of the Federal Supply Service is responsible for policy and functional requirements development for all functional areas related to SSRs. The Logistics Data Management Division is the focal point for these functions, provides representation to the SPG and acts as the contact point for the DODSSR Study.

In accordance with an agreement with DoD, GSA coordinates policy and requirements for supply support of civil agencies with DLA.

3. Systems Design Activities (SDAs)

a. General

The systems design activities are responsible for the development of systems to implement the detailed functional requirements statements prepared by the headquarters level activities. This includes the development of the conceptual design of the system to accomplish the functions outlined in the requirements specification. Depending upon the degree of definition provided in the requirements specification, the SDA may prepare a detailed functional requirements specification to further delineate system requirements.

The SDA is responsible for determining how the requirement will fit in with existing systems and/or application. Systems design specifications show the relationship of a given requirement to other systems or functional areas and define inputs, outputs, files and major processes. Requirements for ADP programs are specified and programming specifications are developed.

Computer programs are developed using the program specifications. These programs may be tested in conjunction with the operating activities that use or implement the programs.

Manual systems are not usually designed by SDAs. Operating activities usually design and develop manual systems themselves based upon the requirements specifications or other procedures provided by the headquarters level activities.

b. Army. The Automated Logistics Management Systems Activity (ALMSA) located at St. Louis, Missouri, is the systems design activity for development of computer systems and programs for the Army's Commodity Command Standard System (CCSS). System design requirements flow from DARCOM through CDA for SSRs and directly from DARCOM for other functional areas. Operational control is exercised by DARCOM.

c. Navy. The Fleet Material Support Office (FMSO) located at Mechanicsburg, Pennsylvania, is the systems design activity for the development of automated systems for the Navy's Uniform Inventory Control Point (UICP) System. Requirements specifications from NAVSUP flow to FMSO and are coordinated with the ICPs. Operational control is also exercised by NAVSUP.

d. Air Force

The AFLC prepares detailed functional requirements statements which are provided to the system design activities for development of automated systems. Some of the automated systems are centrally designed, developed and programmed at AFLC; however, the applications for provisioning and supply support requests were designed and developed at ALCs for AFLC.

The office of primary interest (OPR) for SSks prepares a detailed functional requirements specification which is forwarded via the Directorate of ADP Resources at AFLC to the ASD at McClellan Air Force Base at Sacramento, California. The computer systems design is then developed by the Data Automation Branch of the Comptroller. Although the Data Automation Branch personnel work with people at SMALC in the development of automated systems, the Comptroller is organizationally placed under the base commander rather than the ALC.

The automated system for provisioning was developed by Data Automation of the Comptroller at Hill Air Force Base. The OPR for the provisioning function at AFLC is the Provisioning and Data Management Branch of the Directorate of Logistics Management. The provisioning requirements statement developed by the provisioning branch at AFLC was forwarded to Hill Air Force Base via the Directorate of ADP Resources at AFLC. As at Sacramento, the Comptroller is under the command control of the base commander and is not organizationally placed directly under the ALC.

e. Marine Corps. The MCLSBA at Albany, Georgia, is responsible for the design and development of automated systems for logistics applications in the Marine Corps. The complete responsibility for the development of functional specifications, computer systems design and operational implementation resides at Albany. Provisioning and supply support request processing was manually performed during field research at Albany. The automation of these areas was in the conceptual design stage at that time.

f. Defense Logistics Agency

The DLA Systems Automation Center at Columbus, Ohio, is assigned responsibility for the development of computer systems for logistics application for the Defense Supply Centers (DSCs). Functional requirements specifications for SSR and related applications, except the technical subsystem, are developed by the Supply Operations Directorate at DLA Headquarters. Cataloging and technical applications are under the policy guidance of the Technical and Logistics Services Directorate, but the Systems Change Requirements are developed by DSAC and coordinated with DLA Headquarters.

Both operational and functional control of DSAC is the responsibility of DLA Headquarters. Although the Supply Operations Directorate controls the design of SSR systems, the Technical and Logistics Services Directorate maintains operational control of the operating elements at the DSCs that have the primary responsibility for implementing the systems under the design control of Supply Operations.

g. General Services Administration. Responsibility for the design, development and implementation of automated systems for logistics applications is resident at the Logistics Management Division of the Federal Supply Service. Cataloging and IMC functions are automated at GSA. The automation of the SSR application was in the conceptual stage at the time of the DODSSR research at GSA and is scheduled for implementation in 1981.

4. Operating Activities

a. General

Operating activities are those that process SSRs and related cataloging transactions. Figure II-3 shows the relationships among principal SSR operating activities. The SICC submits an SSR for a supply support requirement to an IMM. Prior to submitting the SSR, the SICC is required to determine if an item has an NSN and an existing manager by screening cataloging records at the Defense Logistics Services Center (DLSC). The IMM receives the SSR and performs item identification and screening actions with DLSC. If the item is accepted for supply support, the IMM advises the SSR submitter and performs cataloging actions with DLSC. DLSC updates its records and provides advice to both the SICC and the IMM.

An operating activity may operate in more than one mode or role. An activity in the role of SICC, may submit an SSR for a commodity oriented item to a CICC. A SICC may also submit an SSR to a WIMM for a weapons oriented consumable item. An activity that is a SICC for one item may act as CICC or a WIMM for another item for which it is the IMM.

OPERATING ACTIVITIES

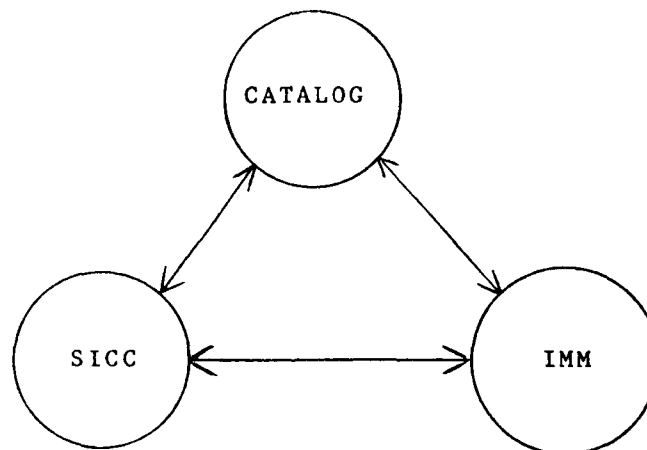


Figure II-3

Figure II-4 matrix depicts the principal SSR operating activities for each Component and indicates the various operating modes for each activity.

b. Army

The five major Materiel Readiness Commands (MRCs) are the principal submitters and receivers of SSRs in the Army. TARCOM is somewhat unique in that it is the only Military Service activity that is a CIMM. Some subordinate activities of the MRCs also submit and receive SSRs.

Two activities organizationally placed under CERCOM submit and receive SSRs. They are the Electronics Materiel Readiness Activity (EMRA) located at Vint Hill Farms, Virginia, and the Communication Security Logistics Activity (CSLA) located at Fort Huachuca, Arizona. The General Materiel and Petroleum Activity located at New Cumberland Army Depot, Pennsylvania, and the Army Support Activity at Philadelphia, Pennsylvania, process SSRs as subordinate activities under TSARCOM. In addition, the Army Medical Materiel Agency submits SSRs for nonmedical items.

c. Navy. The two principal Inventory Control Points are the submitters and receivers of SSRs in the Navy. The Civil Engineer Support Office (CESO) at Port Hueneme, California, submits support requirements to the Ships Parts Control Center (SPCC) for preparation and submission of SSRs to the appropriate IMM.

d. Air Force

The five Air Logistics Centers (ALCs) are the major processors of SSRs in the Air Force. The Air Force has centralized their cataloging functions at the Cataloging and Standardization Office (CASO) located at Battle Creek, Michigan. This office performs item identification, item entry control, stock number submittal and other cataloging functions for the ALCs.

CASO is assigned the direct supply support function of reviewing SSR offers made to Air Force ALCs by IMMs. This includes item interchangeability, substitutability and replaceability technical assistance.

e. Marine Corps. The Marine Corps Logistics Support Base at Albany, Georgia, is the only activity that processes SSRs in the Marine Corps. The complete responsibility for systems design, development and implementation of SSR systems is assigned to MCLSBA.

PRINCIPAL SSR OPERATING ACTIVITIES

Component	Activity ^{1/}	SICC	CIMM	WIMM	Catalog
Army	ARRCOM	X		X	
	CERCOM	X		X	
	MIRCOM	X		X	
	TARCOM	X	X	X	
	TSARCOM	X		X	
Navy	ASO	X		X	
	SPCC	X		X	
Air Force	CASO ^{2/}				X
	OCALC	X		X	
	OOALC	X		X	
	SAALC	X		X	
	SMALC	X		X	
	WRALC	X		X	
Marine Corps	MCLSBA	X		X	
DLA	DCSC	X	X		
	DESC		X		
	DGSC		X		
	DISC	X	X	X	
	DLSC				X
GSA	Headquarters		X		
Coast Guard	EGICP	X			
	SICP	X			
	AICP	X			

^{1/} See Appendix E for definition of activity names.

^{2/} CASO is listed separately here because it centrally performs certain cataloging functions that are performed by ICPs in other DoD Components.

Figure II-4

f. Defense Logistics Agency

The four Defense Supply Centers shown in Figure II-4 essentially operate in the role of CIMMs. Defense Construction and the Industrial Supply Centers have an additional role, albeit a minor one. DCSC provisions materials handling equipment for DLA. During this process, SSRs are prepared and forwarded to appropriate IMMs. SSRs for items in the equipment for which there is no stock number, and which will be managed by DLA as a WIMM, are forwarded to DISC for processing. DISC processes these items as a WIMM and performs the full range of WIMM functions for these items.

As a Designated Special Function Activity (DSFA), DISC also receives and processes all requests for cataloging and supply support from DLA base supply activities for items used in base supply operations.

The Defense Logistics Services Center performs the following services related to SSR functions:

- (1) Provisioning Screening;
- (2) Item Identification;
- (3) Stock Number Assignment;
- (4) Item Management Coding and User Interest Recordation; and
- (5) Cataloging.

These services are provided for all Federal Components.

g. General Services Administration. The Logistics Data Management Division of the Federal Supply Service of GSA Headquarters, Washington, D.C., is the single focal point for processing of SSRs for GSA managed items.

h. Coast Guard. Three Coast Guard ICPs are currently submitting SSRs under the procedures specified in the IMM Manual effective 1 May 1978. The DODSSR Study has no information indicating that the Coast Guard is receiving SSRs in a WIMM capacity.

E. FUNCTIONS

Historically, SSR processing has not been designated a major functional area of supply, but rather has been considered a part of one or more major functional areas, such as provisioning or

cataloging. The basic functional tasks involved in the preparation, submission, processing, and control of SSRs by SSR submitters and receivers are contained in the IMM Manual. These tasks are performed in relation to and support of several functions. The basic interrelationship of these major functional areas and SSR processing is shown in Figure II-5.

The major SSR tasks performed by submitters and receivers are listed below. Certain tasks related to functional areas depicted in Figure II-5 are also listed. These listings illustrate the overlap and interrelationship of SSR tasks within and among the major functional areas.

FUNCTIONAL RELATIONSHIP

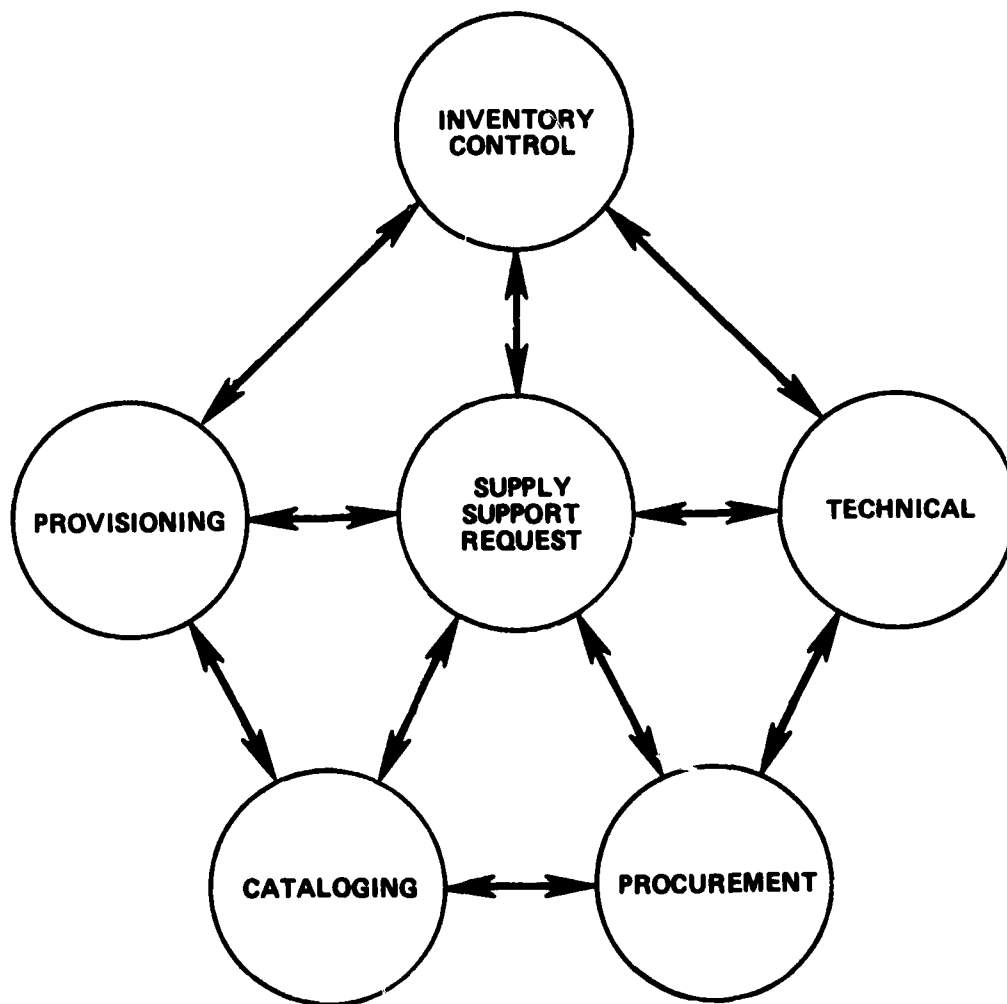


Figure II-5

1. Supply Support Requests Tasks

a. SSR Submitter

- (1) Perform provisioning screening in accordance with the DoD Provisioning and Other Preprocurement Manual;
- (2) Determine the range and depth of support items needed to meet supply support requirements;
- (3) Prepare and forward SSRs;
- (4) Provide technical data with SSRs when required;
- (5) Process advice received from IMM and review offers of standard or alternate items for acceptability; and
- (6) Establish internal controls and followup procedures.

b. SSR Receiver

- (1) Receive and process SSRs and associated technical data;
- (2) Perform item entry control (IEC) to preclude entry of duplicate items of supply, and provide offers of alternate or standard items if appropriate;
- (3) Provide notification of acceptance or rejection of supply support;
- (4) Determine the range and quantity of support items to be procured and/or stocked;
- (5) Prepare Federal Item Identification (FIIs) and obtains NSNs; and
- (6) Prepare and submit file maintenance transactions to DLSC to accomplish IMC and user interest registration.

2. Provisioning Functions

- a. Integrated logistics support plan/schedule development;
- b. Item selection - source, maintenance and recoverability coding;

coding; c. Method of management determination - item management

d. Provisioning screening;

e. Requirements forecasting; and

f. Program/End Item Application file maintenance.

3. Technical Functions

a. Item identification;

b. Item entry control;

c. Technical data determination and repository;

d. Technical file maintenance; and

e. Procurement item description.

4. Cataloging Functions

a. Federal catalog item description;

b. NSN assignment;

c. User interest registration; and

d. Management data recording.

5. Inventory Control Functions

a. Method of support determination - AAC assignment;

b. Requirements determination;

c. Requirements scheduling;

d. Inventory records maintenance;

e. Budgeting; and

f. Funding.

6. Procurement Functions

a. Procurement item identifications;

b. Supply source recognition;

- c. Advertisement/solicitation;
- d. Award; and
- e. Inspection/quality control.

All of the above functions and tasks are involved at one time or another, or impact on the processing of SSRs. The interrelationship of these functions in terms of the organizations responsible for these functions and their impact on SSR processing will be discussed in more detail in Volume II of this Report.

F. SUMMARY

The management environment consists of the policies, procedures, organizations, functions, and systems necessary to accomplish SSR processing. The policies and procedures contained in the IMM Manual form the basis for the requirement for SSR processing. The functions that must be performed and the organizations required to perform these functions generate the requirement to design and develop systems to accomplish these functions. The operating segment of this environment exists at those activities that implement SSR systems that have been developed and provided to them to accomplish SSR processing. Each of the factors involved in the management environment affect the end product of requesting and obtaining supply support.

A smoothly operating, effective and efficient system is a product of the adequacy of each of the factors in the management environment. A system results from the interaction of policies, procedures, organizations, and functions. There should be clearly defined goals, a plan to achieve these goals and a method of measuring achievement. To the extent that there are clearly defined goals, definitions, requirements, and conventions to request and obtain supply support in combination with appropriately designed and implemented systems, supply support will be provided in an effective manner. To the extent that deficiencies exist in one or more of these factors, a set of problems is created that will impair supply support.

The DODSSR Study was initiated because of problems that had been reported through the SPG. The types of problems reported indicated potential defects in more than one area of the management environment. The study group attempted to identify problems associated with each of the factors and management levels associated with supply support requests. These problems were categorized and associated with one or more areas of research and techniques of problem resolution. Chapter III of this Volume provides a description of our problem identification efforts.

This Chapter discussed the management environment in general terms in order to show a general framework of the policies, procedures, organizations, functions, and systems for obtaining supply support. Chapter IV of Volume I, and Volumes II and III, discuss each of these factors in detail in relation to the problems outlined in Chapter III, Volume I. Finally Chapter V of Volume I addresses analysis, conclusions and potential solutions to these problems.

CHAPTER III
PROBLEM IDENTIFICATION

A. INTRODUCTION

The DODSSR Study Team was established to identify and correct problems associated with systems for generating, transmitting, controlling and managing Supply Support Requests (SSRs). The study was initiated because of problems reported during meetings of the SPG. The problems reported by the SPG include:

- * Extended transmissions times.
- * Delinquent SSRs.
- * Excessive number of rejects.
- * Inadequate controls.
- * Deficient management reports.

B. APPROACH

The study group viewed the problems reported by the SPG as indicators or symptoms of deficiencies or malfunctions in the systems for generating, transmitting, controlling and managing SSRs. The basic approach was to confirm or deny the original problems reported, to further describe and define these problems, to ascertain if additional problems exist, and to identify and recommend corrections to the underlying causes of these problems to accomplish the study objectives.

During the course of the study, the DODSSR Study Team periodically participated in meetings with the SPG and/or study contact points from the Components. The study team provided briefings on the progress of the study and discussed the status of the study, Service/Agency participation in the study and the future course and timing of the study. The Component and study team representatives exchanged views on SSR problems and difficulties being encountered by the study group in researching these problems in order to develop solutions.

As a result of these meetings the Component and study representatives agreed upon research techniques to supplement the basic research being conducted of the SSR policies and procedures, and the systems design and implementation of SSR procedures at

systems design and operating activities. Joint participation in this research by the study group and headquarters, systems design and operating level activities of the Components was utilized to the maximum extent possible.

Three major supplemental research techniques were used to identify, categorize, analyze and correct SSR problems; questionnaires, tests, and data collection and analysis. Each of these techniques are discussed below.

C. QUESTIONNAIRES

Three types of questionnaires were developed, one general purpose and two special purpose questionnaires. The general purpose questionnaire was an opinion survey of a wide range of possible problems and recommendations. One of the special purpose questionnaires was a validation analysis questionnaire on validation practices and the other was a data element questionnaire concerning the organization, use and adequacy of SSR formats and data elements. Each of these questionnaires is discussed below.

1. Problems/Recommendations Questionnaire

a. Background

During study research at headquarters, systems design and operating activities throughout the course of the study, the study group asked these activities to identify problems associated with any of the elements in the management environment (policies, procedures, organizations, functions, systems) affecting the generation, transmission, processing, control or management of SSRs. These activities were also asked to provide recommendations to correct specific problems being reported or systems changes to improve SSR systems in general. Problems were also identified and documented during the course of our policies and procedures review, and the systems design and operational implementation reviews at the activities visited.

In order to insure the widest possible amount of participation, the study team requested the Component study contact points to ask each of their systems design and operating activities throughout their respective Components to document and report to the study group those problems they were experiencing with the design and implementation of the new SSR Procedures, and their recommendations for improvements to the system. The establishment of this problem reporting system expanded our source of information to include all major systems design and operating activities, not just those that were visited by the study group.

During the course of the DODSSR Study, a joint DLA/Air Force Inspector General (IG) Team conducted a survey of problems related to SSR practices and procedures at DLA and Air Force activities. The IG Team provided a copy of their report to the DODSSR Study Team and requested that problems, findings and recommendations contained in the report be incorporated into the DODSSR Study. The study team agreed to consider the IG findings in the DoD study to ensure that the problems and recommendations reported, which were based upon conditions obtaining at DLA and Air Force activities, were also relevant to the operations of other Government Components. Since some of the IG recommendations had a potential impact upon other Government Components, it was felt that the interaction of the other Service activities with DLA and the General Services Administration (GSA) as well as other Service relationships with Air Force should be considered.

b. Purpose

(1) To identify and highlight potential problems and recommendations for further analysis and consideration.

(2) To provide a broad base of participation in the study by users and to take advantage of their experience and judgment.

(3) To permit an objective analysis of the problems and comments on the problems by an independent study group in consonance with other analyses being performed during the course of the study.

c. Methodology

(1) Development

The study team established a library of problems and recommendations that had been collected during the conduct of the study. Each item was reviewed, consolidated, categorized and labeled prior to entry into the library. Each entry was labeled with its source, including the type and name of the submitter. All submitting sources were recorded for each item. Each item was also identified by major problem type and placed into a major problem category.

The questionnaire was developed by extracting items from the problem library. Figure III-1 is a representative sample page from this questionnaire. Items outside the scope of the study were not included in the questionnaire. Where contributions from different submitters expressed essentially the same problem situation or position on an issue, they were consolidated into one item in the questionnaire. Contributions presenting

DODSSR STUDY
PROBLEMS/RECOMMENDATIONS QUESTIONNAIRE

Date: _____
Activity: _____

Item No.	Recommendation Problem	Concur	Non-concur	Remarks
3.0	SYSTEMS			
3.1	<u>Recommendation.</u> Simplify and condense SSR formats.			
3.2	<u>Recommendation.</u> Each SSR submitter and receiver should maintain SSR suspense/history files in the same sequence and use the same access keys to facilitate communication and control.			
3.3	<u>Recommendation.</u> SSR receivers should have a capability of matching requisitions to their corresponding requirement in SSRs. SSR retail quantity could be considered as a funded or nonfunded reservation released by the requisition when matched by document no. or project code. SSR receiver could also determine amount of SSR materiel actually requisitioned by SSR submitting Service.			
3.4	Problem. CIMM/WIMM are not recording SSR submitters as users on DLSC records after providing advice accepting supply support.			

Source: DODSSR Study Letter of 15 January 1979; Subject: DODSSR Study Problems/Recommendations Questionnaire

Figure III-1

divergent or opposite views on the same issue were included. The source of the entries was not indicated on the questionnaire. Each entry reflected the viewpoint of one or more individual submitters and was included in the questionnaire on that basis. No attempt was made by the study group to editorialize entries or to pass judgment in any way on the relative merit of an item.

(2) Organization. The problems and recommendations included in the questionnaire were organized into five basic categories. Some items may be included in more than one category, depending upon the orientation of the particular problem.

(a) Policy

Entries in this category include items that relate to the policy section of the DoD directives and manuals. These are issues that deal with the question of what should be done and the major criteria as to the applicability of an action, and whether or not an action should be performed.

Examples of this category include criteria for submitting an SSR, who funds for quantities in SSRs, what type of SSR should be submitted for different types of requirements.

(b) Procedures

Items in this category relate to the question of how an event should be accomplished rather than should it be performed. This area deals with the manner or methodology in which an action is performed. Items in this category relate to the procedures section of the IMM Manual.

Examples of items in this category include instructions on the use of SSRs, selection and use of a particular transaction or format, description of data elements, the application and interpretation of data elements, codes, and procedures for the entry of data in transactions.

(c) Systems

A system is the automated or manual plan consisting of an organized grouping of processes to accomplish actions in accordance with the policies and procedures specified in the IMM Manual. Entries in this category deal with the way in which systems design or operating activities interpret and implement the SSR procedures.

Examples include differing interpretations in the design and programming of the SSR procedures, and variances in programs or processes in the handling of SSR transactions. In other words, the general performance of actions involved in requesting and providing supply support.

(d) Validation. Validation is the procedure or process used to check the entry of data in terms of content and format for correctness or compliance with applicable standards, rules and conventions. As such, this category crosses the lines of both procedures and systems. Problems in this category were shown separately because of the emphasis placed on this category throughout the study by SSR system designers and processors. This category relates directly to the problem of "excessive number of rejects" reported by the SPG. Because of this emphasis and the number of entries received in this category, it was considered a major problem area by the study group and treated separately.

(e) Data Elements

A data element is a name for a class or category of data based on natural or assigned relationships that can be used to denote a set of data items. For example, the data item "Tuesday" is a member of the set denoted by the data element "weekday."

This category is also related to the procedures and systems category, but it is also shown separately due to the emphasis placed upon this item and the frequency of mention. Because of this emphasis, this was considered a major problem area by the study group and treated separately.

Most of the items reported centered around two data elements, Document Identifier Codes (DICs) and Action Taken Codes (ATCs). These codes identify types of SSR transactions and the various actions taken on these transactions.

(3) Population Sample

This questionnaire was sent to four systems design activities and 18 operating activities in order to obtain the broadest base of participation and experience in the identification and resolution of these problems. Service/Agency headquarters activities were also invited to submit replies. All replies were submitted to the study team for evaluation. Replies were received from each of the systems design and operating activities.

Since this was an opinion survey, each activity was asked to indicate their concurrence or nonconcurrence and to provide any remarks to clarify their answer. Activities were encouraged to submit any additional problems or recommendations which they felt were significant.

Generally, each activity responded to all of the questionnaire items, either through indication of concurrence, nonconcurrence or remarks.

d. Evaluation

Evaluation was performed by the study group. Each of the responses were tallied and recorded on a master record. Remarks were also recorded for consideration along with the standard replies. Since this questionnaire was highly subjective in nature, no attempt was made to use a simple enumeration of the number of concurrences or nonconcurrences for each item. In many cases the explanation in the remarks block contained more information than an "X" in the "Concur" or "Nonconcur" columns.

This questionnaire was used to obtain a general feeling of the incidence of problems and the opinion of field activities in regard to particular items. Obviously items with a high incidence of agreement of submitters, those that had a significant explanatory statement, or that had been confirmed by independent research by the study group were tagged for additional attention.

Each of the entries on the questionnaire were identified to one or more other analytical techniques for further analysis to confirm the incidence of the item, to clarify and/or explain the item and to develop corrections and/or changes to eliminate the problem or improve system processing. Responses to this questionnaire were considered in conjunction with the policies and procedures review, systems design analysis, operational implementation review, data collection and analysis, research tests and other questionnaires covered by Volumes II and III, with the results incorporated into the comparative analysis contained in Chapter V of this Volume.

2. Validation Analysis Questionnaire

a. Background

One of the most common complaints received by the study team was the excessive number of rejects of SSRs by IMMs. This was attributed by the respondents to differences in validation concepts and criteria used in the automated SSR processing systems of SSR submitters and receivers.

The problem of "excessive rejects" was originally reported by the SPG. This was subsequently confirmed by study research during visits to field activities and by a preliminary analysis of SSR transactions obtained as a result of a data collection by the study team.

The study team, therefore, decided to pursue a vigorous analysis of validation systems used to validate incoming and outgoing SSRs.

b. Purpose. The variations and limitations of systems documentation available to the study group inhibited the type of in-depth analysis desired. The study group developed a standard questionnaire to obtain information from systems design activities to be used in conjunction with available documentation to perform an analysis to determine the compatibility of validation systems with each other and with conventions for entry of data in SSR formats contained in the SSR Procedures.

c. Methodology

(1) Development. The validation analysis questionnaire was designed to permit a review of the edit/validation design concepts, approach, methodology, technique, structure and criteria of the automated systems of each of the Service/Agencies used to check both incoming and outgoing SSR transactions, including request, advice, offer, reply, followup and response transactions.

(2) Organization and Content. The questionnaire contained three sections; a set of instructions providing an outline of the coverage and the types of information desired, and two types of forms to provide the requested information. Examples of these forms are shown in Figures III-2 and III-3. Coverage of the questionnaire is shown below.

(a) Program Structure/Hierarchy. Respondents were requested to indicate whether separate validation programs had been developed or whether validation criteria was imbedded into other programs containing processing for other actions in addition to validation. Each program was to be listed with an indication of the content of that program and sequence of running of that program in relation to other processing actions.

(b) Validation Structure/Hierarchy. Requested information in this category included information on the levels of validation being performed, order of validation of individual data elements and the relative location, sequence and timing of individual data element validations in relation to the level of validation being performed and interface with other processing actions being accomplished.

DODSSR STUDY VALIDATION ANALYSIS QUESTIONNAIRE

Activity: _____
Date: _____

Control Data Element Validation

Data Element	Validation Criteria	Internal Error Code	DoD 4140.26M Action Taken Code

Source: DODSSR Study Letter of 22 November 1978, Subject: Validation Analysis
Questionnaire.

Figure III-2

DODSSR STUDY VALIDATION ANALYSIS QUESTIONNAIRE

Activity: _____
 Date: _____

Detail Data Element Validation

CONDITION 1 LISSR (CXA)

Data Element	Validation Sequence	Mandatory Optional Bypassed	Validation Criteria	Internal Error Code	DoD 4140.26M ATC
Document Identifier Code					
Activity Code To					
Type Change Code					
NSN					
Retail Quantity					
IMC					
AAC					
Replenishment Quantity					
Quantity per End Item					
Item Serial Number					
Date of Request					
Unit of Issue					
Special Materiel Content Code					
Provisioning Control Code					
Interchangeability Code					
Activity Code From					

Source: DODSSR Study Letter of 22 November 1978, Subject: Validation Analysis Questionnaire.

Figure III-3

(c) Types of Validation. Respondents were requested to provide information on the forms provided to them for each of the types of validation being performed and the order or sequence of validation between and within a particular type of validation. A separate form was provided for each of the types of validation shown below.

- : Package
- : Card/Data Element Combinations
- : Control Data Elements
- : Key Data Elements
- : Match/Duplicate Checks
- : Detail Data Elements

(d) Validation Procedures. Forms were provided to indicate validation procedures. A separate form was provided for each type of validation. Submitters were requested to indicate the conditions and/or data elements being checked, specific validation criteria and type of internal or external error code assigned. The submitters were required to submit a form for each of the document identifier types specified in the SSR Procedures; to indicate how valid and reject transactions were handled, including which transactions were entered into suspense files; whether single or multiple errors were produced for each input transaction; and how these errors were communicated to functional users.

(3) Population Sample. Questionnaires were sent to the systems design activities of the Army, Navy, Air Force, DLA and GSA. It was requested that the questionnaires be completed by the lead and detail programmers for those applications processing and validating incoming and outgoing SSRs to insure the integrity and accuracy of the responses. Replies were received from all activities.

d. Evaluation. The validation questionnaires were reviewed for accuracy and content. Like the Problems/Recommendations Questionnaire, it was not intended that these questionnaires would be used by themselves. The intent was to use them in conjunction with a number of other analysis techniques, and to integrate them into the comparative analysis contained in Chapter V of this Volume. Some of the uses of these questionnaires are indicated below.

(1) The results were used in combination with the conventions contained in the SSR Procedures to develop a DODSSR Edit/Validation program to process SSR transactions received in the DODSSR Data Collection.

(2) Analysis of the questionnaires was made in conjunction with reports generated from the DODSSR Validation Program and the statistical reports generated from the DODSSR Data Base as described in the Performance Evaluation in Volume III.

(3) Results were compared with the systems design and implementation reviews described in Volume II.

(4) The Validation Analysis Questionnaire was compared with the Data Element and Problems/Recommendations Questionnaires.

(5) Comparison was also made with the Validation Test described below.

3. Data Element Matrices Questionnaires

a. Background

Another common complaint received by the study team was that the SSR procedures and formats are too complex, and that there are too many data elements and codes within these data elements. Users felt that the complexity of the forms and numerous unused data elements contributed to the large number of rejects and loss of SSRs being reported. The respondents recommended that the reported problems be reduced through the simplification of the procedures and forms and elimination of unused data elements and formats.

These complaints relate directly to three of the five principal problems reported by the SPG; delinquent SSRs, number of rejects and inadequate controls. Because of the numerous complaints in this area, the study team developed a questionnaire to permit an analysis of SSR formats and data elements based upon user experience.

b. Purpose. To determine what control and detail data elements in SSRs are being used, and how they are being used by systems design and operating activities.

c. Methodology

(1) Development. The data element matrices were designed to determine the adequacy and use of each of the SSR formats and the data elements contained in these formats. Matrices

were developed for each document identifier code format contained in the SSR Procedures. A separate form was developed for each transaction type for incoming and outgoing provisioning and non-provisioning SSRs.

(2) Organization and Content. Separate forms were developed for control and detail data elements. Control data elements are those that are literally used to control or exercise direction over the processing of SSRs. The control elements are used to sequence the SSRs in order to store and retrieve them from manual and automated files. They are also used to group related transactions and to route and control them throughout the processing cycle. Detail data elements are those that are used throughout processing to accomplish required individual actions. For example, quantities used in requirements determination to procure items for support.

(a) Control Data Element Matrices

During our research we found that activities were processing and controlling SSRs in different sequences using the same or different control data elements. If such procedures were significantly different, this could impact upon communication between activities sending and those receiving SSRs.

Figure III-4 represents a sample page from the Control Data Element Matrices. Activities were requested to fill out the matrix provided by indicating the sequencing of the SSR transactions by control data elements when these transactions were received and input to processing, the sequence for validation, sequence when they were sent to another activity and the sequence used for storing and retrieving these transactions in suspense and history files. For each of these actions, activities were asked to indicate for each control element which was used first, second, etc.

The same questionnaire was sent to systems design and operating activities. Systems Design Activities (SDAs) were asked to provide information on automated processes, and operating activities were asked to provide information on manual actions.

(b) Detail Data Element Matrices

Numerous comments were received to the effect that there were many data elements and codes required by the procedures but were not needed to accomplish SSR processing. Activities with no use for a particular element had no real incentive to take care in providing the element correctly or even providing it at all.

DODSSR STUDY: DATA ELEMENTS QUESTIONNAIRE

Activity: _____ Date: _____

Outgoing Provisioning SSRs

CONTROL DATA ELEMENT SEQUENCE

Data Element	Input	Validation	Suspense Control File	History File
Provisioning Control Code				
Item Serial Number				
Date of Request				
Activity Code To				
Activity Code From				
Document Identifier Code				
Card Number				
NSN				
Manufacturers Part Number				
Additional User				
Document Number				
Type Change Code				
Transaction Date/Process Date				
User Code				

Source: DODSSR Study Letter of 9 November 1979, Subject: Data Element
Questionnaire.

Figure III-4

Because of this, systems design activities were asked to complete those matrices as shown by the sample in Figure III-5. A form was provided for each of the document identifier types and conditions specified in the SSR Procedures. SDAs were requested to indicate for each data element what automated systems applications and files used, which data elements, and what was the usage.

Operating activities were asked to complete the matrices shown by the sample in Figure III-6. Instead of designating computer system usage, they were asked to indicate whether the data element was being used, its specific use and the responsible organizational element that was the principal user of the data element.

(3) Population Sample. The control and detail data elements questionnaires were sent to four systems design and 18 operating activities. This is the same population used for the Problems/Recommendations Questionnaire. This is also the same population used for our data collection and analysis, to ensure compatibility of analyses and the broadest possible degree of coverage, participation and interrelation.

d. Evaluation

The questionnaires were reviewed for completeness, clarity and compatibility of entries from form to form within submitting activity, and among submitting activities of the same and different Components. Clarifications were requested and obtained from individual submitters as required.

Like the Problems/Recommendations and Validation Analysis Questionnaires, the Data Elements Questionnaires were analyzed in conjunction with all the other study techniques. These questionnaires were somewhat subjective in nature and were used as indicators of potential significant information to be considered with other supporting analyses, and confirmed or denied on the basis of objective analysis.

D. TESTS

Tests are trials or experiments that are performed to show how an existing system is performing or whether a proposed new system is feasible. The test applies a standard set of procedures to specific input under controlled conditions. The result is then examined to determine the relative performance of the test. The experiment may be performed under actual or simulated operational conditions. Two tests were conducted during the DODSSR Study. These tests are described below.

DODSSR STUDY DATA ELEMENTS QUESTIONNAIRE

Activity: _____ Date: _____

Outgoing Provisioning SSRs

CONDITION 1 LISSR (CXA)

Data Element	Files/Applications	Use
Document Identifier Code		
Activity Code To		
Type Change Code		
NSN		
Retail Quantity		
IMC		
AAC		
Replenishment Quantity		
Quantity per End Item		
Item Serial Number		
Date of Request		
Unit of Issue		
Special Materiel Content Code		
Provisioning Control Code		
Interchangeability Code		
Activity Code From		

Source: DODSSR Study Letter of 9 November 1979, Subject: Data Element Questionnaire.

Figure III-5

DODSSR STUDY DATA ELEMENTS QUESTIONNAIRE

Activity: _____

Date: _____

Outgoing Provisioning SSRs

CONDITION 1 LISSR (CXA)

Data Element	Responsible Organization Element	Use
Document Identifier Code		
Activity Code To		
Type Change Code		
NSN		
Retail Quantity		
IMC		
AAC		
Replenishment Quantity		
Quantity per End Item		
Item Serial Number		
Date of Request		
Unit of Issue		
Special Materiel Content Code		
Provisioning Control Code		
Interchangeability Code		
Activity Code From		

Source: DODSSR Study Letter of 9 November 1979, Subject: Data Element Questionnaire.

Figure III-6

1. Validation Test

a. Purpose. The validation test was run to perform a comparative analysis of the edit/validation criteria used by the automated systems of the Army, Navy, Air Force and DLA.

b. Procedures

Several structured sample decks of punched cards were prepared by the study group. Some decks represented outgoing SSRs and other decks represented incoming SSRs. Decks were also prepared for CIMM and WIMM type items. Cards were prepared for each of the types of transactions contained in the SSR Procedures. The card decks contained valid data elements and preselected error conditions.

The test decks were run through the actual computer programs that had been designed by the Component systems design activities. Although the actual programs were used, this was a simulation of actual operating conditions using the actual programs, but with simulated transactions and test files operating in the test mode.

Test activities were requested to provide copies of outputs from the test runs to the study group for analysis. Output test products provided for evaluation included copies of reports, listing of output transactions and copies of SSR master or suspense file listings of transactions posted to these files as a result of the validation runs.

c. Population Sample. The test decks were mailed to the test activities for running in accordance with the procedures contained in the covering letter (DODSSR Study letters of 12 January 1979, Subject: Sample Validation Runs for DODSSR Study). The test decks used and test activities selected are shown in Figure III-7. There were approximately 100 to 200 records in each of the test decks.

VALIDATION TEST SAMPLE

Test Decks	Test Activities			
	ALMSA	FMSO	SMALC	DCSC
Outgoing CIMM SSRs	X	X	X	
Outgoing WIMM SSRs	X	X	X	
Incoming CIMM SSRs	X			X
Incoming WIMM SSRs	X		X	

Figure III-7

d. Evaluation. The validation test was evaluated in conjunction with the Validation Analysis Questionnaire, DODSSR Validation Program results, Quantitative Evaluation statistics and the field research performed by the DODSSR Study Team. The results of this evaluation are included in the Edit/Validation Analysis in Volume III of this Report.

2. AUTODIN/Telefax Test

a. Purpose. This test was conducted to determine the feasibility of electrically transmitting SSRs and related technical data in place of forwarding by U.S. mail.

b. Reference. Volume III of the DODSSR Report contains a complete description of the purpose, background, objectives, test procedures and evaluation. A brief summary is provided here to show the reason for the conduct of the test and a synopsis of how it was conducted to show the relationship of this analytical technique with others described in this Chapter. Please refer to Volume III for a more complete explanation.

c. Summary.

This test is directly related to the SSR transmission time, control and delinquency problems reported by the SPG. The DODSSR Study Team was asked by the SPG to determine the feasibility of transmitting SSRs over AUTODIN. The study team had no direct information on which to make such a determination. Permission was requested to conduct a feasibility test. The Chairman of the SPG granted approval of the test after representatives of the Army, Navy, Air Force and DLA agreed to participate in the test.

All CIMM SSR transactions from three Service SICC's to a DLA IMM were transmitted by AUTODIN during the period 1 September through December 1978. The IMM returned all advice transactions to the submitters by AUTODIN. Copies of all these transactions were provided to the DODSSR Study Team in the data collection described below and in Volume III of this Report.

During the period 1 October to 31 December 1978 two of the SICC's electrically transmitted technical data using a facsimile transmission system that had been installed specifically for the test. This was a one-way transmission of technical data from the SICC to the IMM. The technical data was marked with control information to permit matchup with the SSRs that had been transmitted by AUTODIN.

Participating activities were provided with an evaluation plan by the DODSSR Study Team to evaluate the effects of the test on their operations, since this was a live test using actual SSR transactions. The activities were asked to compare the results of SSRs and technical data forwarded electrically with those that were submitted by mail.

The study team received copies of all SSRs submitted by AUTODIN in the data collection. These transactions were placed in the data base along with other transactions collected over an eight months period. Analytical reports were developed to measure the performance of the test in terms of study and test objectives. The evaluations submitted by the participating activities were analyzed in combination with the computer reports generated from the quantitative evaluation described in Volume III. The complete description of the conduct of test and the test results are contained in Volume III.

E. QUANTITATIVE EVALUATION

1. Background. It was alleged by the SPG that SSRs were not being processed in a timely manner due to an excessive reject rate, extended transmission times, a high delinquency rate and inadequate controls. The SPG had requested the Components to provide statistical information on the processing of SSRs. The information provided by the Components was limited and not sufficient to permit an analysis or comparison. The study team performed a review of the management reports available at headquarters, systems design and operating activities of the Components. The team confirmed the SPG finding that there was very little management data available on SSRs at any level and that available information was not adequate to perform a quantitative evaluation of the performance of the SSR Systems. The study team, therefore, asked for and received permission from the SPG to conduct a data collection and analysis.

2. Reference. A data collection and analysis was established as described in Volume III. A brief summary is provided here to show the relationship of this analytical technique with the others described in this Chapter.

3. Summary

The collection and analysis of data was originally established because of the lack of available management reports to provide even a basic statistical picture of the system. During the development of the evaluation plan, it was enlarged to support the other analytical techniques described here in combination with an overall measurement and analysis of the performance of the SSR systems in support of the study objectives.

A Quantitative Evaluation Plan was developed. A data collection system was established to collect actual SSR transactions from the major SSR submitters and receivers in DoD and GSA. A computerized data base with eight months of transactions was established. Analytical models of the SSR systems, evaluation criteria, and computer specifications and programs for descriptive and analytical reports were developed to evaluate these systems.

The results of this analysis is described in Volume III. The quantitative evaluation contained in Volume III in conjunction with the results of all other study analyses is included in the comparative analysis in Chapter V of Volume I which forms the basis for study conclusions and results.

CHAPTER IV
SYSTEMS REQUIREMENT

A. FUNCTIONAL REQUIREMENT

1. Introduction

The functional requirement for supply support requests (SSRs) derives from the need to support end items of equipment as discussed in the supply support concept in Chapter II. The SSR Procedures contained in the IMM Manual form the basis of the functional requirements statement which is used to design systems to generate, transmit, process and control SSRs. The SSR Procedures provide a set of conventions consisting of card formats, data elements and definitions, and codification instructions for mandatory, conditional or optional entry of data into card formats, and procedures for generating, transmitting, processing and controlling SSRs.

The SSR Procedures were used by the Components to design their automated data processing systems. The card formats contained in the SSR Procedures represent the various types of transactions, events or actions that can occur during the SSR process. The SSR transactions have been categorized into their major types and an explanation of each transaction type with a definition of key data elements is provided to present an understanding of the SSR process. These transactions represent the inputs to and outputs from the SSR System. Through the use of document identifier and transaction codes an SSR submitter may request that an action be taken or an SSR receiver may communicate an action that has been taken upon a request.

2. Authority. The IMM Manual is published under the authority of Department of Defense Directive 4140.26, Integrated Management of Consumable Items.

3. Definition. The SSR Procedures define an SSR as "A request submitted by a SICC to the CIMM or WIMM which manages, or is the potential manager, of the item or materiel required. For items requiring Item Management Coding, the SSR is used as an IMC card."

4. Purpose

a. General. Chapter I of the IMM Manual provides general guidance applicable to Item Management Coding, Logistic Reassignment and Supply Support Requests. The stated purpose or

objective is to eliminate duplication of effort in the wholesale materiel management of consumable items through the application of approved IMC criteria and the utilization of uniform procedures.

b. Specific. The IMM Manual does not list a specific purpose or objective for SSRs, other than that CIMMs will process SSRs and provide timely support. However, a review of the permissible transactions and procedures specified indicate that the SSR is intended to accomplish the following actions:

(1) Item Management Coding (IMC). The SSR acts as an IMC card when the submitting Component has not previously coded the item for integrated materiel management. The IMM is charged with the responsibility of acting as the Item Management Classification Agent and providing cataloging and supply support for items under the cognizance of the IMM.

(2) Registration of User Interest. The SSR is used to request the addition of an activity as a user of an item when that activity has not been previously recorded in the records of the IMM and DLSC, and for which support has not been previously provided.

(3) Request for Supply Support. The requesting activity provides a forecast of retail and replenishment quantities to support its requirements for the support item being requested to the IMM to determine the method and level of support to be provided. Method of support includes the method of management by the IMM such as centrally stocked, or centrally procured but not stocked; and level of support includes the quantity of materiel to be procured and/or stocked to support the supply support request.

(4) Cataloging Support. The SSR provides management and technical data to be used by the IMM to perform the following actions:

(a) Item Identification. This is the description of the item in relation to other items of supply.

(b) Item Entry Control (IEC). Determination of whether the item already exists in the system or if there is a suitable substitute.

(c) NSN Assignment. IMM requests DLSC to assign an NSN for new items of supply for which integrated materiel management is assumed.

(d) Catalog Management Data. IMM updates the management data segment of DLSC files to record such data as unit price, unit of issue, etc.

5. Scope

a. Inclusions

(1) Organizations. Provisions of the IMM Manual apply to the Army, Navy, Air Force, Marine Corps, Defense Logistics Agency, Defense Nuclear Agency, National Security Agency, General Services Administration and Civil Agencies of the Federal Government.

(2) Items. The SSR Procedures apply to consumable type items subject to item management assignment to an IMM, including:

- (a) Provisioning and nonprovisioning items.
- (b) CIMM/WIMM Items.
- (c) Items already managed by an IMM.
- (d) New items being assigned to an IMM for the first time.
- (e) Initial and follow-on supply support requirements.

b. Exclusions. The SSR Procedures are not applicable to the following categories of items.

- (1) Medical Material.
- (2) Clothing and Textiles.
- (3) Subsistence Items.
- (4) Fuels.
- (5) Ammunition.
- (6) Items that meet the IMC criteria for Service retention.
- (7) Items peculiar to use by a foreign country and not used by U.S. Forces.
- (8) Nonconsumable items.

6. Generation Criteria. The SSR Procedures are rather permissive in nature and do not provide specific criteria as to

when an SSR should or should not be generated. Generation of SSRs is at the discretion of the submitter. Procedures are more specific as to when an SSR is not required than when an SSR is required.

a. SSRs are not required for existing IMM items with NSNs unless there are:

(1) Five or more of the same systems/equipments to be supported.

(2) Items are essential to support of high priority systems.

(3) Items have a production leadtime of six months or more.

b. SSR changes resulting from design or program changes are not required after 24 months have elapsed since the original Date of Request (DOR) for the original item being supported. New support requirements resulting from changes after 24 months will be submitted as new requirements. Changes affecting less than 10 percent of the original requirements need not be submitted.

c. SSRs will not be submitted for locally managed items unless the SICC is recommending that the IMM change the method of management from local to central management.

7. SSR Transaction Types. SSR transactions are required to be prepared in punched card formats. There are three basic types of SSR transactions; one card provides program data, another is a request for support for a particular item, and the third is an advice card to request or provide status of processing of a supply support request. A three position Document Identifier Code (DIC) is used to distinguish these transactions. Each transaction type and subtype represents a particular action or event as outlined below.

a. PDSSR (Program Data Supply Support Request)

A PDSSR transaction is a header card that provides program data and accompanies individual supply support requests for separate line items of supply. PDSSRs are identified by DIC CWA or WWA. The first position identifies whether the request is for a CIMM or a WIMM item; C for CIMM and W for WIMM.

The PDSSR is designed for SICC's to furnish initial and supplementary provisioning or other program data concerning the end item for which supply support is being requested. Program data includes the following type of information:

: End Item Identification
: Date NSNs Required
: Date Repair Parts Required
: Weapons System Identification
: End Item Delivery Schedule

A one-position Type of Change Code (TCC) is used to identify provisioning and nonprovisioning actions. This code also indicates whether the program data being supplied is an original submission of program data or whether it is a design or program change to an original submission of a provisioning package.

b. LISSR (Line Item Supply Support Request). The LISSR is forwarded from a SICC to an IMM to provide management, technical, catalog, and quantitative data to request cataloging and supply support action for a specific item of support. There are two basic types of LISSRs; requests for support for individual line items and transactions providing technical and cataloging data associated with a request.

(1) Request Transactions. The DIC is also used to identify the type of request being forwarded. Requests fall into three categories; NSN items, Part Number items and PSCN items. The first position of the DIC indicates whether the request is for a CIMM or WIMM item. The second position "X" indicates that it is a line item transaction and the third position indicates the type of item being requested as shown below. The TCC is also used to indicate whether the request is an original submission, change or cancellation of an original submission.

(a) NSN. A CXA or WXA transaction indicates that the request is for an item with an existing stock number. The item is classified as a Condition 1 item if the NSN item is currently managed by an IMM. If there is no current DoD Manager assigned, the item is classified as a Condition 2 item.

(b) Part Number. A Part Number item is identified by DIC, WXB or CXB. This item has no recorded NSN for it in DLSC files and is classified as a Condition 3 item.

(c) PSCN. This item has a Permanent System Control Number assigned in the DLSC files. It is classified as a Condition 2 item and is identified by DIC WXC or CXC.

(2) Catalog Transactions. Catalog transactions may accompany a request transaction to provide additional technical or catalog type data. There are three types of catalog transactions.

(a) Item Name. A DIC CXF identifies a transaction providing a noun name for an item. A noun name must be furnished for a part number item if technical data is not provided with the part number request. Technical data is required for part number item requests sent to CIMMs. If technical data cannot be supplied for any reason the item name card must be forwarded to provide the minimum identification information required to obtain a stock number for the item.

(b) Additional Reference Number. A CXG transaction provides an additional reference number (part number) which identifies the same item of production or supply as the primary manufacturer's part number or NSN indicated in the associated Request Transaction. More than one additional reference number card may be submitted for a LISSR transaction.

(c) Additional Multi-Service User. A CXK transaction identifies additional users who are claimants on Multi-Service Contracts and have requirements for supply support for the item being provisioned.

c. LIAC (Line Item Advice Card). LIACs are used by both SSR submitters and receivers to reflect actions taken on a request transaction. There are four basic types of LIAC transactions.

(1) CX1 Advice (IMM to SICC). CX1 Advice Transactions reflect the results of IMM processing on a request transaction by a SICC. Each advice transaction has a transaction code called an Action Taken Code (ATC) that indicates the type of action taken on a request. There are approximately 70 different ATCs to indicate the type of action taken on an SSR. These transaction codes can be grouped into four major advice categories.

(a) Accept. Accept advice indicates that the request for supply support has been accepted, and support will be provided. This transaction may provide a new support date and provide information as to how the item will be supported.

(b) Offer. The IMM may offer a different item as a substitute or replacement item for the one that was requested in the original SSR. The submitter of the SSR is required to review the offered item and advise the IMM of its acceptability.

(c) Status. The IMM may provide status on a request when action on a transaction has not been completed. Status may also be provided in response to a followup from the submitter for advice on a request.

(d) Reject. An SSR may be rejected by an IMM for a number of reasons. Although there are numerous ATCs that can be used to identify a specific reject reason, reject codes can be grouped into several major categories. An item may be rejected because it has been improperly classified in the incorrect FSC (Federal Supply Class) or forwarded to the incorrect manager. An invalid NSN or PSCN may have been indicated. Improper or inadequate catalog or technical data is also cause for rejection of an SSR. If data has been incorrectly entered into a card format, the transaction may fail validation routines and be returned to the submitter. A transaction may also be rejected if it is a duplicate transaction, if the transaction fails to match a corresponding transaction in control files or if the item cannot be procured by the IMM.

(2) CX2 Replies to Offers (SICC to IMM). When a Submitter receives an offer of an alternate or substitute item from an IMM the submitter must review the offer and advise as to its acceptability. The SSR submitter has the alternatives of accepting the offer, rejecting the offer or cancelling the original request.

(3) CX3 Followup Transaction (SICC to IMM). If a SICC has submitted an SSR and has not received an answer from an IMM, a followup may be forwarded to obtain status on the original request. A followup may be sent for three different reasons.

(a) Initial Advice. A followup may be sent if the SICC has not received any type of advice on a previous request.

(b) Final Advice. If initial advice has been received, but notification of final action taken has not been received a followup may be sent to obtain final disposition on an SSR.

(c) NSN. If an SSR has been submitted for a part numbered item and an acceptance has been received, a followup may be sent to obtain a stock number for the item.

(4) CX4 Response to Followup (IMM to SICC). A CX4 transaction provides a response from an IMM to a followup transaction from a SICC. Only two types of response are provided for

in the SSR Procedures. If status has been recorded in the control files of the IMM, the status that is recorded in the file will be provided; otherwise, advice will be provided indicating that there is no record of a previous request in the file.

8. Transmission of SSRs. The SSR Procedures currently provide that all PDSSR and LISSR transactions and associated technical data will be mailed to the IMM responsible for management of items for which support is being requested. The procedures permit, but do not require, all LIAC transactions to be submitted over the Automatic Digital Network (AUTODIN).

9. Controls

a. Provisioning/SSR Packages. Historically the provisioning of end items of equipment has been accomplished on a package basis. A package consists of groups of items that are handled together. There are a number of different types of packages as shown in Figure IV-1. Each of these packages have certain data elements assigned that are considered Control Data Elements or Control Keys that are used to identify a particular package and are used to monitor the package during its processing cycle.

TYPES OF PROVISIONING/SSR PACKAGES

Type	Definition	Control Keys
Provisioning	All items on Provisioning List(s)	PCC
PDSSR	Items submitted to same IMM from same SICC	PCC, Activity Codes, DOR
LISSR	Transactions for same item of supply	PCC, Activity Codes, ISN, DOR

Figure IV-1

(1) Provisioning Package. A provisioning package consists of all items on a provisioning list for a particular end item or Component. A Provisioning Control Code (PCC) is assigned to identify and control a particular provisioning project through the provisioning processing phase.

(2) PDSSR Package. A PDSSR package includes all supply support request transactions submitted to the same IMM from the same SICC. The controlling data elements are the PCC, Activity Codes for the submitting and receiving activities, and

Date of Request. This is referred to as a PDSSR Package because the package includes a PDSSR as a header card with all the associated LISSRs (Requests and Catalog Cards) forwarded to an IMM with the same date of request.

(3) LISSR Package. A line item package consists of all the transactions for the same item of support submitted to the same IMM from the same SICC. A LISSR Package submitted to an IMM includes the request transaction and all the associated catalog and technical information cards with the same PCC, Activity Codes, and DOR for the same Item Serial Number (ISN). An ISN is a six-character Item Serial Number assigned to a LISSR Package. It is used for sequential line item and communication control to relate all line item cards in a request for the same item of support. This serial number is required to be used in all subsequent actions; changes, followups, advice, offers, and responses pertaining to the same line item under the same PCC.

b. Control Elements. There are eight different control data elements that are used to sequence and control SSR transactions for processing, and to store and retrieve SSR transactions in files. These control elements are also used to relate all the different types of SSR transactions to each other and to maintain an audit trail from initial request to completion of an SSR. Each of the individual control data elements listed below may be used in various combinations to identify individual SSR transactions or packages of SSRs.

ACF: Activity Code From
ACT: Activity Code To
PCC: Provisioning Control Code
ISN: Item Serial Number
DOR: Date of Request
DOA: Date of Advice
TCC: Type of Change Code
DIC: Document Identifier Code

c. Technical Data. SICC's are required to establish appropriate internal control and followup procedures to assure that technical data which was not available at the time of submission of SSRs is submitted to CIMMs at the time this data becomes available.

d. Suspense Files. IMMs are required to maintain a suspense record of request and advice actions until 120 days have elapsed since final advice was provided to the SICC. This file will be used to respond to followup transactions by providing status from the file or to indicate that there is no record of a request if there is no record in the file.

10. Performance Evaluation

a. Goals. The IMM Manual does not provide any specific goals for the accomplishment of SSR processing. There are two general requirements mentioned in the manual for SICC's and IMM's.

(1) SICC's are required to provide SSR's to IMM's as soon as possible after determination of the range and quantity of supply support requirements.

(2) IMM's are required to furnish support items in a timely manner to fill SICC's supply support requirements.

b. Standards. There are a number of timeframes in the SSR Procedures for the accomplishment of actions based upon the submission or receipt of various SSR transactions. The major timeframes are listed below:

- : Initial Advice - Provide within 25 days of receipt of SSR.
- : NSN Advice - Provide NSN by need date, but not later than 60 days after SSR receipt.
- : Reply to Offer - Required within 60 days from date of offer.
- : Followups - 35 days from date of submission of request for initial advice.
- 70 days from date of submission of request for NSN.
- 70 days from date of submission of reply to offer for NSN.
- : Responses - IMM provide response to follow-up within 15 days of receipt of followup.

c. Management Reports. The IMM Manual does not require the production of any management reports to measure SSR processing and to evaluate the performance of the SSR process.

11. Summary

This section described the requirements for generation, transmission, processing, control and management of SSR's on a functional basis. The functional requirement is specified in the SSR Procedures in the IMM Manual. The SSR Procedures provide a set of rules, conventions and mechanized formats to be

used by SICC's and IMM's in requesting and providing supply support for items subject to integrated materiel management assignments. The procedures provide a method of communication to accomplish SSR processing, but do not constitute a system, in and of themselves, to accomplish that processing.

The SSR Procedures provide a description of standard inputs, and outputs to be used, and functional processes to be accomplished. These procedures provide the basis for the design and development of automated or manual systems to be used by SICC's and IMM's to process SSR's. The next section will describe a conceptual system of the type required to be developed to implement the functional requirement as outlined in the IMM Manual.

B. CONCEPTUAL SYSTEM

1. Purpose. The purpose of presenting a Conceptual System is to depict the type of system required to provide supply support in accordance with the supply support concept described in Chapter II and to implement the functional requirements as discussed in Paragraph A. of this Chapter. A conceptual system is one which provides an abstract representation of the primary functions to be accomplished and the relationship of these functions to each other. The major phases and events are discussed in the preferred sequence in which they are performed in relation to the major organizational entity responsible for each major functional area.

2. Conceptual Systems Model

Figure IV-2 illustrates a model of the required conceptual system in terms of inputs, processing actions and output products. The model takes the form of a flow chart representing the supply support cycle commencing with initial provisioning actions and ending with final supply support results.

Major events have been combined into processing phases or segments of the supply support cycle. Each phase should be accomplished in the order specified reading from left to right. A phase consists of a grouping of events that are functionally and time related. Each event should take place in the top to bottom sequence shown within each processing phase. In addition to being functionally and time related, events within a processing phase are organizationally related in that each phase is performed by a major organizational entity, such as a contractor, Provisioning Activity, Service Item Control Center or Integrated Materiel Manager. Individual events may be performed by different organizational elements from activity to activity; however, events that are more closely functionally related are usually performed by the same organizational element.

CONCEPTUAL SYSTEMS MODEL

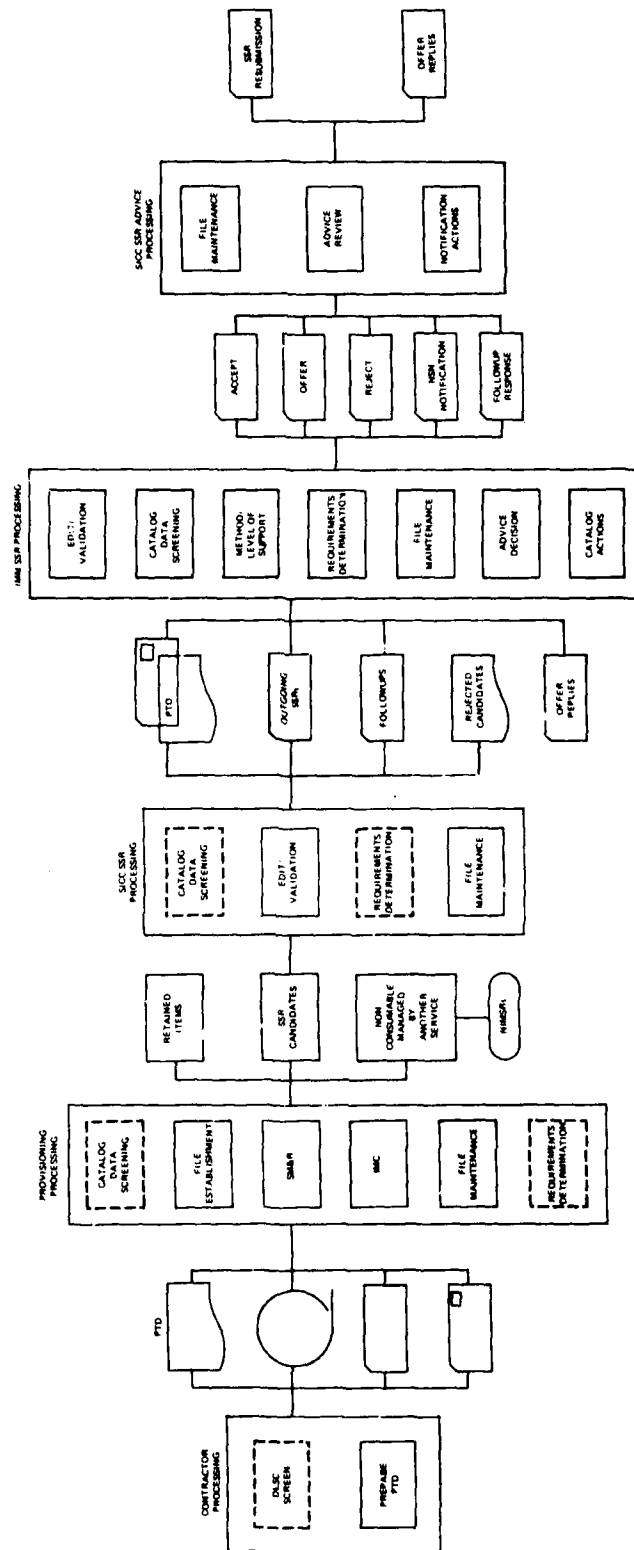


Figure IV-2

Events shown by a solid line should generally be performed in the position of the processing flow as shown. Events shown by dashes may be performed in different phases as shown in the processing flow. Also, an event shown by dashes may be performed more than once during the cycling of the system. Each phase must be accomplished in a time sequential order; however, some of the events are not critical to the accomplishment of a particular processing segment and thus may be performed later. Timing and performance of an event is also effected by system design and implementation variances among the Components. This is more clearly explained in the description of the conceptual systems model below.

3. Description of Major Phases and Events

The supply support cycle consists of five major processing phases; therefore, the conceptual system model reflects five principal processing segments. The cycle begins with the preparation and submission of provisioning documentation by the contractor; followed by receipt and processing of the contractor's documentation by the provisioning activity; generation and transmission of support requirements by the Service Item Control Center to the IMM; processing of the supply support requests by the IMM, who in turn provides advice to the SSR submitter to complete the cycle. This cycle may iterate several times before actions are complete on individual transactions or groups of supply support requests.

Each of the major phases and events are described below keyed to the order of appearance in the chart in Figure IV-2.

a. Contractor Processing. The end item contractor performs those actions and provides that information as specified in the basic contract and specifications referenced by the contract on which the end items are procured. There are two key events related to the supply support of items of supply contained in the equipment.

(1) DLSC Screening. This event is performed if it is a contractually required item. Procedures vary among and within Services on the requirement to screen part numbers against the catalog files of the Defense Logistics Services Center to determine if NSNs are assigned to one or more support items in an equipment. Within a Service, contractor screening may be required for procurement of one equipment but not for another. Stock numbers picked up during the screening process are provided to the provisioning activity and become part of the provisioning technical documentation supplied under the end item contract.

(2) Provisioning Technical Documentation (PTD).

The contractual requirement for provisioning documentation is specified by the Provisioning Requirements Statement, DD Form 1949-2, PTD Data Selection Sheet, DD Form 1949-1, and the Contractor Data Requirements List, DD Form 1432. Provisioning documentation is prepared in accordance with Military Standards 1552 (Appendix F, Reference 22) and 1561 (Appendix D, Reference 23). This documentation identifies support items contained in the equipment and is used by the provisioning activity to determine initial requirements and cataloging of items to be supported during the provisioning process. Provisioning technical documentation consisting of provisioning lists of items contained in the equipment and associated technical data, such as drawings, sketches and item descriptions may be provided to the provisioning activity in a variety of media as shown on the chart. This information may be in the form of hard copy, machine processable magnetic tapes or punched cards, and/or microform.

b. Provisioning Processing. Provisioning is the management process for determining and acquiring the number and quantity of different support items required to operate and maintain an end item for an initial period of service. During the provisioning process, the Military Services determine items required to support the equipment and the method of support for these items. There are six major events to accomplish the provisioning process as a prerequisite to generating supply support requests.

(1) Catalog Data Screening. When the provisioning technical data is received, the data is reviewed for adequacy. Depending on whether the contractor performed screening with DLSC and the types of catalog files maintained by a given Component, either local or DLSC screening, or both, should be performed to obtain NSNs for part numbered items and verify submitted NSNs, and obtain management data and user interest information. The results of this screening along with the rest of the provisioning data is passed to the next event.

(2) File Establishment. Program data on the end item of equipment and item data on support items in the equipment is entered into provisioning files after the data has been verified and screened. Establishment of this data in the files may be performed prior to or in combination with the succeeding events shown below.

(3) SM&R Coding. Source, Maintenance and Recoverability Codes are assigned to all support items to convey maintenance and supply instructions to the various logistic support levels and using commands. They are assigned based on the logistic support planned for the end item and its components.

The uniform code format as specified in the Joint Regulation governing the use and application of SM&R Codes (Appendix F, Reference 20) is composed of three two-character parts, Source Codes, Maintenance Codes and Recoverability Codes in that order. This is the first step in the item selection process and determines which items (range) will be supported and how they will be supported (manufacture, purchase or repair).

(4) Item Management Coding (IMC). Item Management Codes are applied in accordance with the criteria in the IMM Manual. This process indicates whether the item will be managed as a consumable, reparable or end item, and whether the item will be managed as a CIMM, WIMM or Lead Service Item. Items, that are not retained by the provisioning activity for management are candidates for supply support requests for CIMM or WIMM management if they are consumable, or for Nonconsumable Item Materiel Support Requests (NIMSRs) if they are nonconsumable.

(5) File Maintenance. After initial entry of program and item data for an end item into provisioning files this data is continually updated during the provisioning process. Codification actions such SM&R and IMC are recorded in the files. Some Components also provide for indication of the status of supply support on provisioned items. Information on both, retained items and those for which support is requested from another manager, may be recorded in the file to track the support condition of the equipment to determine if the equipment is ready to be placed into an operational mode.

(6) Requirements Determination. The determination of the quantitative requirements for initial and replenishment support may be performed during the provisioning process or may be performed during the SICC SSR processing phase based upon factors developed during provisioning. At this time SSR candidates for consumable CIMM and WIMM items are generated. When this event is performed here, actual quantities will be entered into the SSR candidate. If actual computation of quantities is not performed here factors should be provided in the candidate SSR or placed in provisioning files for later processing during the SICC SSR processing phase. The SSR candidates that are generated are passed to the SICC SSR processing phase for further processing. Consumable or reparable items that are retained for management by the provisioning activity and reparable items managed by another Service are not covered by the IMM Manual and are not within the immediate boundary of the DODSSR Study and; therefore, are not discussed further in the Conceptual Systems Model. This is discussed under the supply support concept in Chapter II of this Volume.

c. SICC SSR Processing. The Service Item Control Center SSR processing is shown as a separate phase to highlight those events more closely related to the actual generation and submission of the SSR. This manner of presentation also permits the consideration of those SSRs that are generated from other than the provisioning process called nonprovisioning SSRs. In addition, the creation of provisioning SSRs generally should occur toward the end of provisioning processing or during a separate SSR processing phase.

(1) Catalog Data Screening. The SSR candidates that are received for processing may be screened against local or DLSC files if this action has not been accomplished during contractor or provisioning processing phases. The SSR Procedures in the IMM Manual require that items submitted in SSRs be screened in accordance with the procedures contained in the Screening Manual, DoD 4100.38M (Appendix D, Reference 24). When this event is performed during this processing phase, it may be performed before or after validation as described below.

(2) Edit/Validation. This is the process whereby data elements in a transaction are checked both as to content and format to see if they are entered in accordance with prescribed conventions. The SSR procedures provide specific rules and criteria for entry or nonentry of data in SSR transactions. If data is not entered in accordance with the SSR procedures, the transactions may be rejected by the IMM in accordance with the procedures specified by the manual. This process, therefore, should be performed to preclude rejection by the IMM.

(3) Requirements Determination. This event will be accomplished here if it has not already been performed during a prior phase. If quantities are present in the SSR candidate, an SSR may be generated using these quantities. If factors are present instead of quantities, quantities will be computed based upon the factors.

(4) File Maintenance. Suspense and history files will be maintained on items for which SSRs are generated. These files will be updated to record the forwarding of an SSR and associated technical data to an IMM, to record items that have been rejected during validation, and to initiate followups on outgoing SSRs and rejected candidates. As a result of file maintenance or surveillance, followups may be generated for corrections to internal rejections or for advice on overdue SSRs that have been forwarded to an IMM. Output of any of the transactions shown for SICC SSR processing may be in manual or mechanized form. Outgoing SSRs and followups must be in punched card format in accordance with the SSR Procedures in the IMM

Manual; however, the SSR Procedures currently specify that SSRs must be forwarded by mail while followups may, but are not required to be forwarded by AUTODIN (Automatic Digital Network).

d. IMM SSR Processing. Supply support requests and associated technical data are received by mail. Followups and offer replies may be received by mail or AUTODIN. Each of the events shown in the IMM SSR processing phase should be performed to satisfy the functional requirements as outlined in the IMM Manual. However, these events may be performed at various times in various sequences and within various organizational Components within the IMM activity.

(1) Edit/Validation. This event should be performed first. Data elements should be checked for format and content in accordance with SSR conventions for entry of data. If a transaction fails the validation routine and cannot be corrected through the edit function, it will be rejected to the SICC submitter by mail or AUTODIN. Transactions that pass validation will be forwarded to the next event.

(2) Catalog Data Screening. Catalog data screening should be performed here even if it has been performed during either the provisioning or SICC SSR processing phases. Items may be screened against either local or DLSC files, or both. Based upon the data received from this action, an SSR may be accepted, rejected and/or passed on to the next event.

(3) Method/Level of Support. This process determines whether the item will be centrally stocked and issued, centrally procured but not stocked or locally managed. Determinations also will be made as to whether the item will be classified as a demand based item, insurance item or numeric stockage objective item. As a result of this event, Acquisition Advice Codes (AACs) will be assigned. These codes are identified in the DIDS Manual, DoD 4140.39M (Appendix D, Reference 25).

(4) Requirements Determination. Items designated for central procurement and stockage will be reviewed to determine if existing stocks are adequate or stock is required for new items. An asset availability check will be performed and a procurement generated if a requirement exists. This event should be accomplished before the advice decision is made and forwarded to the SSR submitter.

(5) File Maintenance. Transactions that are received from and forwarded to the SICC activity will be recorded in the suspense and/or history files. These are the control files that contain the disposition of SSR transactions. Transactions that are output for internal action and the internal

inputs to the system should also be recorded in these files. These files serve to provide an audit trail of inputs to and outputs from this processing phase. Output transactions may also be generated as a by-product of file maintenance.

(6) Advice Decision. This event will be performed based upon the results of the other events in this processing phase. Each of the outputs from this processing phase as shown on the chart represent the general types of advice that are provided to the SSR submitter to indicate the results of the processing of the SSR submitted by the SICC activity. The advice will be recorded in suspense/history files and forwarded to the SSR submitter by mail or AUTODIN.

(7) Catalog Actions. The IMM is responsible for performing cataloging actions for items assigned to him. This includes identification and description of the item, requesting NSNs, recording manager and user interest on the item, and recording item technical and management data in catalog files.

e. SICC SSR Advice Processing. This phase is performed to process and record advice from the IMM and generally closes out the cycle for a given SSR transaction. If the advice received is an offer or reject; an acceptance or rejection of an offer will be forwarded; or a new SSR will be submitted for a rejected transaction. Acceptance of the offer closes out the cycle while resubmission of an SSR creates a new cycle. Resubmissions should be processed by the IMM much like an initial SSR.

(1) File Maintenance. The advice received from the IMM will be recorded in the applicable files. Offers and rejections should be reviewed. The file should be updated to reflect the results from the review and outputs generated to reply to offers and resubmit SSRs.

(2) Advice Review. Advice actions involving offers of substitute or alternate items and rejections of SSR submissions should be subjected to local review. The results of this review will be used to update the history of the item and to generate replies to offers and resubmission of SSRs.

(3) Notification Actions. This event provides support determinations and/or status received from the IMM to update provisioning, SSR and/or cataloging functions for action and/or information.

4. Summary

The conceptual systems model depicts an overview of the functional requirements to provide supply support. This model provides a conceptual basis for the design and implementation of systems to implement the functional requirements as outlined in Paragraph A. of this Chapter. The processing phases and events are shown in a representative order and chronology, and depict the relationship of phases and events in the supply support cycle.

This model was presented here to provide the reader with an understanding of how supply support requests are processed and how systems are developed to accomplish such processing. The model does not represent any automated or manual system existing at any Government Component.

Volume II, Part 1, covers the design of automated systems by Systems Design Activities of the Government Components to implement SSR functional requirements. The systems model shown here provides a basis for understanding the ADP systems design charts and narrative depicting the actual systems designed by the Components. Each of the phases and events shown can be accomplished by either an automated or manual system or a combination of both. The systems design activity makes the determination on how to automate particular phases or events. The SDA may decide to combine phases into one particular subsystem or application or to prepare a stand-alone application to interface with an existing application or subsystem, since the existence of a current system for any of the processing phases may influence the design concepts for other phases. The SDA also determines the program stream to accomplish the processing events within each of the major phases and the type, use and placement of computer files.

The conceptual systems chart shown here may also be used to understand and compare the systems that were actually implemented by each of the Government Components, as described in Volume II, Part 2, with the functional requirement and the systems design based upon the functional requirement described in this Chapter. This will permit a better understanding of the design and implementation philosophies of each of the Components in relation to the functional requirement and to the design concepts of each other.

CHAPTER V

COMPARATIVE ANALYSIS

Part 1 - SYSTEMS

A. INTRODUCTION

The DODSSR Study was established to research, analyze and resolve specific problem areas reported by the Components to the Special Projects Group (SPG) for provisioning. The specific problem areas included:

- * Extended Transmission Times
- * Delinquent SSRs
- * Excess Number of Rejects
- * Inadequate Controls
- * Deficient Management Reports

The management environment from which these problem areas stem was discussed in terms of the applicable policies and procedures governing the generation and processing of SSRs contained in the IMM Manual implemented 1 May 1978. The Components developed systems to implement the policies and procedures in the IMM Manual using this manual as the functional requirements statement. The study team, using the IMM Manual, developed a Conceptual Systems Model as a basis for discussion of each Component's systems design and operational implementation of this functional requirement. The automated systems design and functional/operational implementation are presented on a Component by Component basis in Volume II of this Report. To analyze the effects of each Component's system design and implementation upon each other Component's system design and implementation; live data was collected, certain tests were conducted, and descriptive and analytical reports were generated and discussed in Volume III. The discussions in Volumes II and III confirmed the existence of the specific problem areas listed above and pointed out additional problem areas. The Component implementation of the IMM Manual did not in itself resolve any problem areas, but seemed to create additional problems and intensify those that already existed. Volumes II and III illustrate that the IMM Manual as written is not suitable for use as a functional requirement for the development of systems. This Chapter brings together the management environment, the systems design and implementation, and the performance analysis into a single comparative analysis to point out the inconsistencies, variability of interpretation, and lack of specific policies and procedures within the IMM Manual. This

Chapter also presents conclusions relating to the resolution of the specific problem areas encountered in current policies, procedures and systems for generation and processing of SSRs.

Part 1 of this Chapter uses a total systems approach to synthesize the discussions of Volume II and Volume III into current system problem resolutions and a system redesign to eliminate the specific problem areas mentioned above. The systems approach used is centered around the elements from the Conceptual Systems Chart. Each processing phase within this Chart is addressed in terms of inputs, files, processing of major events, outputs and controls. Due to the manner of processing and volumes of transactions; nonprovisioning SSR processing, SSR changes resulting from Design Change Notices (DCNs), joint provisioning actions, and NIMSR processing are presented in separate subsections. The final section of Part 1 is a summary analysis which discusses system concepts and major events in multiple processing phases.

B. CONTRACTOR PROCESSING PHASE

Processing leading to SSR generation begins when a contract with provisioning requirements has been negotiated and agreed upon by the end item contractor and the Government.

1. Inputs. This contractual agreement serves as the basic input to the contractor processing phase. It defines the Provisioning Technical Documentation (PTD) requirements and any other provisioning related requirements; such as, provisioning screening to be accomplished by the contractor. The basis for Provisioning Technical Documentation required by DoD is contained in MIL-STD-1552 (Appendix D, Reference 22) and in MIL-STD-1561 (Appendix D, Reference 23). These Military Standards allow PTD to be submitted in either hard copy, card or tape medium and specifies the format and data elements required. Many of these data elements eventually appear in SSR transactions as entered in this PTD.

2. Files. Files maintained by the contractor may be used to generate provisioning lists which in turn are used to generate SSRs.

3. Processing. The Conceptual System Model (Figure V-1) shows the two major events occurring in the contractor processing phase. These major events include:

- * DLSC Provisioning Screening
- * Preparation of Provisioning Technical Documentation

a. DLSC Provisioning Screening. Generally the Air Force and Marine Corps include DLSC provisioning screening as a contractual requirement. When the contractor is required to

CONCEPTUAL SYSTEMS MODEL

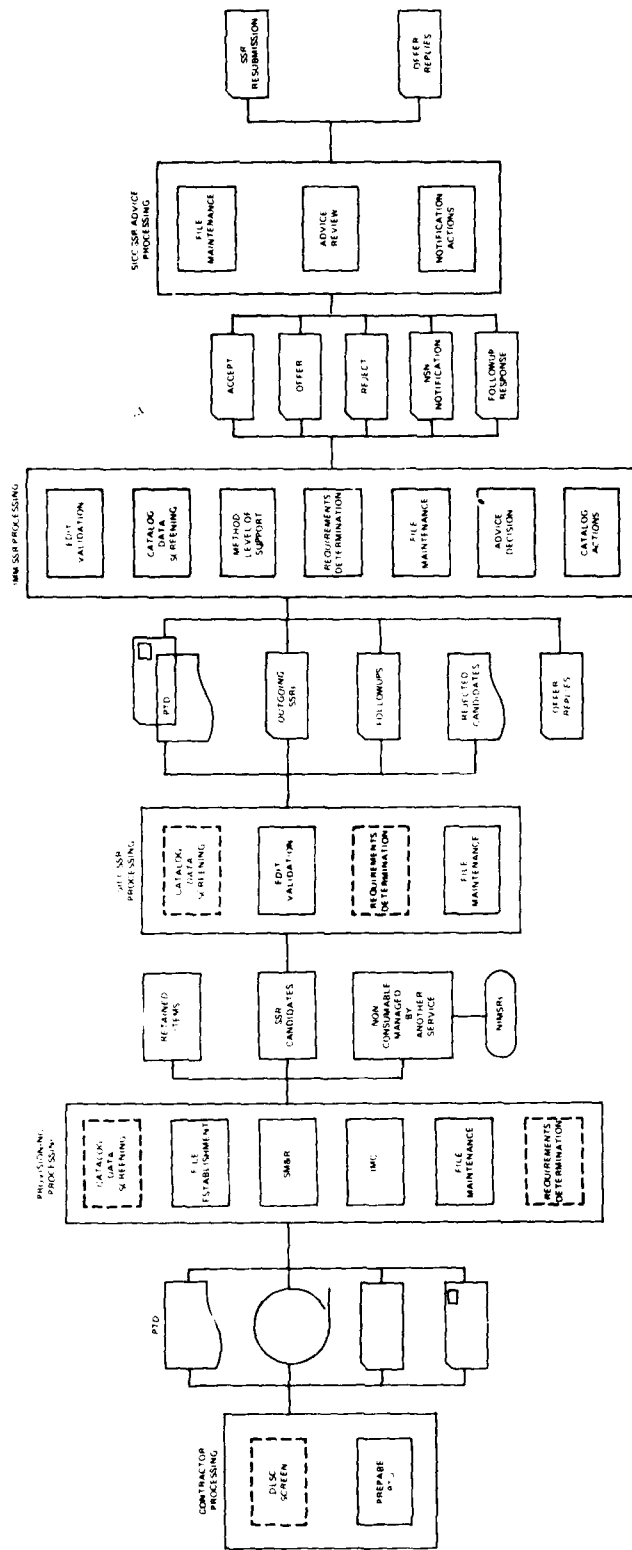


Figure V-1

perform DLSC screening, he screens part numbers which he recommends be source coded in the 'P' (Procured) series. These items are usually screened using a Type 'F' screening transaction which provides all exact and partial matches found in DLSC files. The contractor generally uses a priority of '4' (the lowest available) due to the volume of items being screened. Screening results are not usually processed by the contractor, but are either included as part of the PTD or in many cases the screening results are forwarded directly to the provisioning activity by DLSC.

b. Prepare PTD. The contractor is responsible for the preparation and submittal of PTD as defined in the contractual agreement. The contractor is not released from this obligation until the PTD has been received, reviewed and accepted by the provisioning activity. Generally the minimum PTD submitted by contractors includes a hard copy Provisioning Parts List and associated drawings, aperture cards, and catalog references.

4. Outputs. Provisioning screening transactions may be output on tape and transmitted via AUTODIN for processing or the tape may be mailed to DLSC for processing when the volume is high. PTD may be in hard copy, EAM card, magnetic tape, or a combination of these media.

5. Controls. The contractual agreement including data requirements and the provisioning performance schedule serves as the primary control in this processing phase and contains the requirements which the contractor must meet for compliance.

C. PROVISIONING PROCESSING PHASE

The provisioning processing phase begins when the PTD is received from the contractor. Processing in this phase is generally performed on a package basis.

1. Inputs. The primary input to this processing phase is the PTD prepared by, and received from, the end item contractor.

2. Files. The files used in the provisioning process vary from Component to Component. The Army has established permanent automated files dedicated to provisioning actions, as has the Air Force in its automated provisioning subsystem. The Navy generally uses temporary storage files in the provisioning process with all provisioning data being transferred to permanent operational files prior to the requirements determination process. The Marine Corps, like the Navy, tends to use permanent operational files for storage of provisioning data. In each case, the type files used and the file structure depend on the ADP technology and

equipment present at the provisioning activity. Generally, manual functional provisioning files are also maintained for each provisioning project/contract.

3. Processing

The provisioning technical documentation must be reviewed and accepted prior to commencement of the major events in the provisioning phase. This may be performed by a single individual or by a group of individuals as a joint effort. This review must be performed to ensure that all required provisioning data is present and entered correctly in the PTD. Provisioning Data not present or faulty in format or content should be corrected by the contractor prior to acceptance of the PTD. When the PTD is accepted, the contractor may not be easily persuaded to furnish omitted data or correct faulty data. In at least one Service this review process is partially automated in the form of a validation routine prior to establishing items on provisioning files. Although the study team received reports that the review procedure was too lengthy and expensive for the value gained, it must be recognized that many of the LISSR rejects originate from this PTD. The most notable of these rejects are invalid FSCMs and Part Numbers. The time taken to review this data could be reduced by using mechanized submittal as provided by MIL-STD-1552 and using automated validation procedures as a portion of the review process.

After the provisioning documentation has been reviewed and accepted, the six major events shown in the conceptual systems model may be commenced. The major events include:

- * Catalog Data Screening
- * File Establishment
- * SM&R Coding
- * IMC
- * File Maintenance
- * Requirements Determination

a. Catalog Data Screening. Subsequent to acceptance of the PTD, the provisioning activity generally performs catalog data screening. Only the Army currently automatically generates screening transactions; the other Services all initiate screening actions on a manual basis. If contractor screening was performed, items which match to one or more existing NSNs have NSN inquiries generated instead of screening actions. These inquiries return Management Data needed to process these items. The screening and inquiry processing performed may be against local operational files, DLSC files or both. As mentioned above, only the Army directly initiates screening and inquiry actions on a mechanized basis; however, all the Services generally maintain

automated suspense files of screening/inquiry transactions generated and awaiting a reply. It is also important to note that in this processing phase only the Navy performs automated decision making using screening replies. The other Services all process these screening replies manually. DLSC screening transactions generated in the provisioning processing phase generally contain a priority of '2' or '4,' and the type screening performed is generally type 'S' or 'F' except in the Navy where type 'P' screening is normally performed. The type of screening performed has a direct bearing on the replies received.

b. File Establishment. The automated files established for use in the provisioning processing phase, whether permanent provisioning type files like the Army uses or temporary storage files like the Navy uses, store provisioning data on an item basis; program or provisioning package data is usually maintained in separate automated files. Manual files are distinctly different in that a single file generally contains an entire provisioning project. These manual files lend themselves to the package processing methodology used by each of the Services. The provisioning data entering automated files usually is subjected to a rigorous validation routine which must be passed prior to entrance on the file. Some activities also send technical data received to the activity technical repository for review and duplication as part of File Establishment.

c. SM&R Coding. Source, Maintenance, and Recoverability codes are generally manually assigned by a provisioner or equipment specialist. At this time other maintenance data is reviewed and assigned.

d. IMC. The Item Management Code is also usually manually assigned for new items. The cataloging data is also reviewed and assigned at this point in processing. This cataloging data includes such data elements as FSC, managing activity and Shelf Life Code. For new items entering the DoD Supply System the data elements may have to be assigned from the PTD, while for established items they may be extracted from the results of catalog data screening.

e. File Maintenance. When the maintenance and cataloging data has been assigned to each item in the provisioning project, this data is generally entered on EAM cards for file posting. The data contained on the EAM cards is again subjected to rigorous automated validation prior to being entered on provisioning/operational files. At this point in the processing, items within the provisioning package fall into four categories.

AD-A098 005

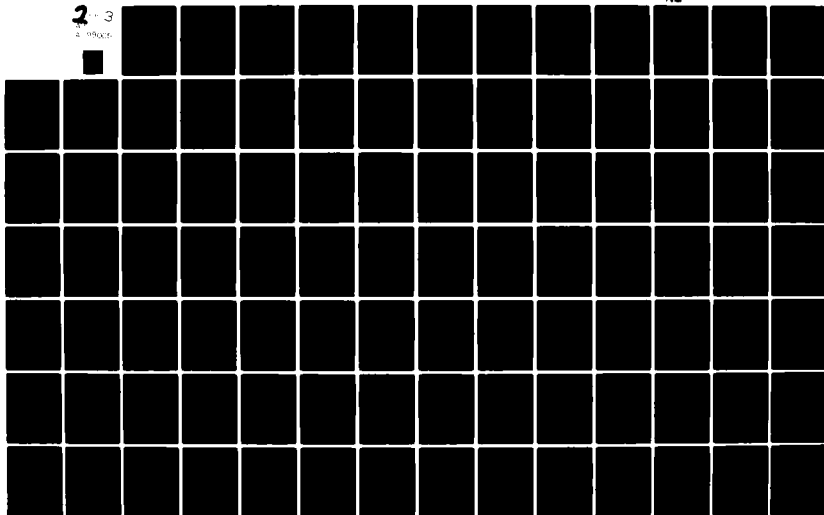
DEFENSE LOGISTICS ANALYSIS OFFICE FALLS CHURCH VA
DOD SUPPLY SUPPORT REQUEST STUDY (DODSSR). VOLUME I. BASIC REPO--ETC(U)
DEC 80

F/G 15/5

UNCLASSIFIED

NL

2-3
4-100000



(1) Items not to be supported.

(2) Items retained for management by the provisioning activity.

(3) Consumable items managed by another activity (SSR candidates).

(4) Nonconsumable items managed by another activity (NIMSR candidates).

f. Requirements Determination. The category into which each item falls determines whether or not the requirements determination process is necessary, and if necessary, the particular formulas to be used or computations to be performed. In the Army and Navy, the requirements computation is usually performed on an automated basis while in the Air Force and Marine Corps, it is usually a manual process.

4. Outputs. Output from the provisioning processing phase consists of the four categories of items described above. No further processing is performed on items which are not to be supported. Retained items are usually forwarded to item managers within the provisioning activity for further processing. NIMSR candidate processing is discussed in Section J. below. SSR candidates are passed along with appropriate technical data to the SICC SSR Processing Phase.

5. Controls. The major controls used in the provisioning processing phase are the manual provisioning project folders and various listings produced as a result of automated processing. These automated listings contain transactions in error and those which were successfully added or updated in the provisioning files.

D. SICC SSR PROCESSING PHASE

SICC SSR processing begins after SSR candidates have been identified and, in most cases, after the requirements computation process has been completed. Processing in this phase may be on an end item or a provisioning package basis depending on the Component/Activity. The Components have generally developed automated processing of SSR candidates in a separate systems design, although in most cases this processing is a direct follow-on from provisioning and/or requirements computation. The degree of automation also varies significantly in this area, both from the standpoint of types of SSR transactions mechanically generated, and mechanical generation of changes resulting from Design Change Notices (DCNs).

1. Inputs

There are basically two types of inputs to the SICC SSR processing phase. The first type is SSR candidates and associated technical data. The second type is inquiries into automated SSR files. All inputs are assumed to be in random sequence requiring sorting prior to processing.

The SSR candidates at this point in processing may be in the format of SSR transactions or they may be in a combined PDSSR/LISSR transaction format or they may be in the format of manual provisioning data. The candidates may be passed directly to the SICC SSR processing phase from the provisioning processing phase on an automated basis, or the action may be manual. The study team found both situations partially as a result of system design and partially because of the degree of automated system implementation. Technical data passed from the provisioning processing phase is generally hard copy drawings or aperture cards.

Inquiry transactions are manually generated and extract data from the Component SSR Suspense File for a single item or all items within a PCC.

2. Files

At most Component activities, manual files are maintained on both active SSR items and completed SSR items. The active files are usually kept and maintained by the individual responsible for processing the item. When the SSR transactions have been submitted, the item may be transferred to a central file containing active items. Completed items are generally kept in a central file. The contents and number of these files (both active and history) vary to a great extent from Component to Component due to the differing systems design concepts used. These manual files are generally maintained in PCC, ISN, and DOR sequence.

All Services have included an SSR Suspense File as part of their automated systems design. These automated files contain both active and completed items. The organizational structure of these files varies from Component to Component; however, it is primarily a sequential magnetic tape file except in the Army; where a complex indexed-sequential, variable length record, disk file is used. The type of transactions maintained in these files also varies from Service to Service. For example, some system designs allow only valid transactions to be posted to this file, while others allow both valid and invalid transactions to be posted. Also, the Navy posts file maintenance transactions on this file, while the other Services generally do not. The type of SSR transactions posted also varies; for example, the Air Force does not post followup transactions to its SSR Suspense File.

The retention period and purge criteria of both manual and automated files vary from Service to Service. The active manual files are generally purged on an item basis by transferring the item to a manual history file when a final accept or final reject advice is received from an IMM. These manual history files are maintained for a period of two years after the PCC has been completed. This two-year period is consistent with the IMM Manual requiring SSR change transactions to be submitted for two years following completion of the PCC. After the two-year period these changes are to be submitted as initial submittal SSR transactions. Maintenance of a history file for two years provides a record of SSR data required for these change transactions. The automated files are maintained for varying lengths of time (from 120 days to one year) and may be purged on a PCC or item basis. There currently is no specific requirement in the IMM Manual for maintenance of a suspense file of SSR transactions/actions by the SICC.

Generally, each Service systems design allows for inquiries into the automated SSR Suspense File. These inquiries are input and processed during the normal processing cycle of the Component SSR Application. The output from these inquiries varies from Service to Service depending on the requests and transactions resident on the SSR Suspense File.

3. Processing

Manual processing in this processing phase is generally on a package basis, while automated processing is usually accomplished item by item. Only the Marine Corps has an established priority for processing SSR candidates. This prioritization is on a manual basis and results in retained items being processed first followed by part number SSR transactions being generated and submitted with NSN SSR transactions being generated and submitted last. Each Component has established SSR generation criteria which each SSR candidate must meet prior to SSR transaction generation and submittal. This criteria varies widely from Service to Service and even by activity within Service. For example, if the requirements computation process results in zero quantities the Marine Corps will not generate an SSR for these items. The Navy uses MOE Rule data for NSN items as a portion of its SSR generation criteria, while the Air Force uses dollar value as part of its criteria. This variance in criteria illustrates the confusion over the intent and purpose of SSR transactions.

SICC SSR processing consists of four major events as shown in the Conceptual Systems Model (Figure V-1). These major events include:

- * Catalog Data Screening
- * Edit Validation
- * Requirements Determination
- * File Maintenance

These major events are performed as a combination of manual and automated processes. Manual processing (and generally scheduling automated processing) falls under a single functional element at each SICC activity, such as the Data Management Branch in the Army at TSARCOM. This single functional element has the responsibility of matching up technical data with SSR transactions, preparing transmittal letters, mailing SSRs to the proper IMMs and maintaining manual files. This functional element usually establishes a manual file for each PCC package when it reaches this processing phase. This file establishment is discussed as a separate major event below. Figure V-2 shows the sequence of major events performed by each of the SICC Services. This figure illustrates the variance in the number of major events performed from Service to Service, but notice the similarity in the sequence of performance among the Services. The major events within this processing phase are discussed below in the sequence shown for the Air Force, since this Service performs the majority of the events.

SICC SSR PROCESSING PHASE
SEQUENCE OF MAJOR EVENTS BY SICC SERVICE

Army	Navy	Air Force	Marine Corps
<ul style="list-style-type: none"> - Validation - File Maintenance - Technical Data Tracking 	<ul style="list-style-type: none"> - Validation - File Maintenance 	<ul style="list-style-type: none"> - File Establishment - Validation - DLSC Screen - Requirements Computation - File Maintenance 	<ul style="list-style-type: none"> - File Maintenance

Source: Field Research

Figure V-2

a. File Establishment

Manual files are established by each SICC when technical data from the provisioning processing phase is passed to the functional element responsible for sending SSR transactions to IMMs. This technical data may or may not be accompanied by SSR data or SSR transactions. The activities operating under an automated SSR system which receives SSR candidates directly from an automated provisioning or requirements computation process, manually pass technical data only. A manual file is established usually based on PCC to hold this technical data until the SSR transactions for that PCC are generated for submittal to IMMs. The technical data stored in these files may or may not have

required control data elements annotated (PCC, ISN, ACT, ACF, DOR). The PCC, ISN, ACT, ACF of each of these items have been determined during the Provisioning Processing Phase by provisioning and cataloging personnel. This technical data is used to determine the technical and cataloging data required in Part Number SSR transactions. When this control data has not been annotated on the technical data, it must wait for the SSR transactions to be generated by the automated process before it may be annotated with control data. Under the current mode of processing with both SSR transactions and technical data being mailed together this is not a problem; however, under the AUTODIN submittal concept presented in Volume III, this control data should be annotated during the provisioning process so the technical data may be prepared for mailing immediately rather than sitting in a manual file awaiting SSR transaction listings from which the needed control data may be obtained.

The Navy may establish program data on its Program Data Record (PDR) at this point in processing. This file may then be used to extract data to build PDSSR transactions to accompany LISSR transactions from the provisioning subsystems or LISSR transactions that are manually generated and input to the SSR Application. The Army and Air Force have also adopted this concept of drawing PDSSR transaction data from current files; however, their particular method is slightly different. Once a PDSSR transaction is posted to the SSR Suspense Files of these Services, LISSR transactions input without a PDSSR transaction will extract PDSSR transaction data from the SSR Suspense File. When a PDSSR transaction with identical control data elements to one already on the file is input, it serves to update the SSR Suspense File only; the second PDSSR transaction is not added to the file. Although it appears that PDSSR transaction data is established in automated files primarily to meet the SSR package requirements, it must be noted that the Navy and Air Force as SICCs allow additional program data outside of that required in PDSSR transactions to be stored in these automated files.

b. Validation/Editing

This is the first major event within this processing phase performed on an automated basis. The Army, Navy and Air Force all have automated validation of SSR transactions designed into their automated SSR Applications. The validation performed by the Marine Corps is on a manual basis. SSR transactions are sorted prior to being validated in the automated systems. In the Air Force a sort key is appended to each transaction prior to the mechanized sort. The data elements used in this sorting process is shown in Figure V-3. In each case the data elements are listed in the sort sequence sorted with the major sort control at the top of each list.

SORT SEQUENCE BY SERVICE

Army	Navy	Air Force
PCC	PCC	PCC
ACT	ACT	ISN
ACF	ISN	DOR/Document No.
DOR	DOR	Transaction Date <u>1/</u>
ISN		DIC
DIC	DIC	TCC
Card No.	Card No.	Card No.

Source: Systems Design Documentation.

1/ The Transaction Date is a computer assigned date indicating the date the transaction is processed by the computer.

Figure V-3

This figure shows that although many of the same data elements are used to control the sequence of processing SSR transactions, the SSR transactions are processed in different sequences in each system due to the different data elements used by each Service and the order in which the data elements occur in the sort sequence. In each of the automated systems, transactions may be sorted more than once; however, the sort sequence is generally the same and this same sequence is generally used for posting transactions to Service SSR Suspense Files.

The validation conventions and criteria used by each of the Services are discussed in Volume III. Generally, the conventions are centered around a stand-alone validation program for data element level validation with other levels of validation (package, duplicate, etc.) performed as part of file maintenance actions. The criteria used by each of the Services generally includes strict validation of the data elements used for sequencing, control and quantitative data with other data elements being bypassed, or edited to a nonerror condition.

c. Catalog Data Screening. The Air Force is the only Service to have designed a screening process into the SSR Application. This is an automated process both from the standpoint of screening transaction generation and screening result interpretation and processing. The screening performed is against DLSC files only and is done for NSN, PSCN, and Part Number SSR transactions. The screening replies are matched to the corresponding SSR transaction and certain data elements are checked for compatibility (AAC, U/I, etc). When a Part Number matches to an NSN, or multiple NSNs, or incompatibilities requiring manual action

exist, the SSR transaction and DLSC screening replies are output on functional listings for manual review. Some data on the SSR transaction may be automatically changed to be made compatible with DLSC file data.

d. Requirements Computation. This major event is generally performed only by the Air Force during this processing phase. Currently, the Air Force has no separate automated requirements computation application. Therefore, SSR quantities must be manually computed or certain computation factors must be placed in SSR quantity fields to enable the automated SSR Application to compute these quantities. Since dollar value is part of the Air Force SSR generation criteria, the SSR transactions remain in the SSR candidate status until after this major event has been completed.

e. File Maintenance

This major event is performed on a manual and automated basis by the Army, Navy and Air Force. It is performed on a manual basis by the Marine Corps. The posting of SSR transactions to the automated SSR Suspense File is generally the final automated action taken prior to producing EAM card SSR transactions. The actual transactions posted are discussed in conjunction with the validation conventions in Volume III and vary from Service to Service. As mentioned earlier in this subsection, SSR transactions are generally posted to this file in the sequence dictated by sort sequences shown in Figure V-3.

Manual file maintenance includes matching technical data to Part Number SSR transactions in preparation for mailing. The Army, Navy, and Air Force have all included automatic generation of Item Name Transactions for each Part Number SSR generated. These item name transactions are manually separated from the Part Number SSR transactions for which technical data is present during this major event. A manual suspense file of SSR transactions mailed is also maintained for followup purposes.

The study team found that automatic generation of followup transactions specified by the IMM Manual are included in the automated systems design of each Service. However, during the operational implementation review only the Air Force system had been fully implemented and the other Services were either not following up on overdue SSR transactions, or were using correspondence or telephone calls as a followup procedure. This was also illustrated in the data collection. The data collection and system design review indicated that the Services were following up 30-40 days from the DOR. The assignment of this DOR has been discussed in Volumes II and III and was found to be assigned differently by each Service and did not necessarily reflect the date the SSR transaction was actually submitted to an IMM. In fact,

the SSR transactions may have been submitted 10 days to two weeks after the DOR. This does not allow the IMM adequate processing time and is partly responsible for the high number of 'No Record' followup responses received by the Air Force. This situation of generating followups too early can be solved by basing generation of followup transactions on the date the SSR is submitted--not on the DOR.

f. Technical Data Tracking. A procedure was found at one activity for submission of technical data subsequent to SSR submission. When technical data was expected to be received from the contractor, but had not been received by the time the SSR transaction for the item was ready for submission, this activity would place a Date Technical Data to be Supplied in the SSR transaction and submit it to the appropriate IMM. The automated system would periodically generate a notification to the technical data repository that technical data was to be submitted to the IMM when received. Periodic followups are automatically generated to the technical data repository until cleared from the automated suspense file. This type of system or procedure appears to be valuable not only from the standpoint of submission of technical data promised to IMMs but also from the standpoint of following up to the contractor for outstanding technical data required by the contract.

4. Outputs

The SICC SSR Processing Phase produces several outputs including outgoing SSR transactions, followup transactions, and various functional outputs as hard copy listings, microfiche listings, correspondence and EAM cards. Outgoing SSR transactions are combined with applicable technical data and mailed to IMMs. Followup transactions are generally designed to be placed on intermediate storage (disk or magnetic tape) for subsequent transmittal to IMMs via AUTODIN.

Each of the automated systems are designed to produce various listings for functional use. These listings generally provide to functional users the automated processing actions taken; e.g., SSR transactions rejected for invalid data, or valid SSR transaction generated for submittal. The Air Force produces certain listings on microfiche rather than hard copy. The Navy system is designed to generate form letters to contractors requesting technical data be sent directly to IMMs when a Date Technical Data to be Provided is included in the SSR transaction. The Army and Navy systems provide EAM cards to serve as correction cards for SSR transactions rejected due to entry of invalid data; the Navy blanks out the erroneous data in these transactions. The only statistical reports produced for this processing phase are counts of SSR transactions generated. These counts reflect current processing cycle data only, no accumulation is done either on a manual or an automated basis.

Manual outputs from this processing phase include correspondence in the form of cover letters forwarding SSR transaction packages and the correspondence followup mentioned above. Some SSR transactions may be manually generated and processed outside the automated systems design, particularly in the Marine Corps.

5. Controls. Manual processing for the most part appeared to be loose and disjointed with little or no control over item processing. Some of the automated listings were used to control manual followup actions. Automated control is based primarily on the data elements used to sort transactions prior to and during processing in the automated system. Followup actions are included in each automated system and are controlled by the DOR of each SSR transaction and the time standard set by the IMM Manual.

E. IMM SSR PROCESSING PHASE

The discussion of this processing phase is divided into two sections. The first section discusses WIMM SSR processing; the second section discusses CIMM SSR processing. This separation is necessary because of the varying formats, transactions and processing actions performed by WIMM activities as compared to those performed by CIMM activities. SSR resubmissions are processed the same as original submissions by both CIMMs and WIMMs with no reference or processing relationship to previous submissions.

1. WIMM SSR Processing

The receipt of SSR transactions from SICC's begins this processing phase. SSR transactions received by WIMMs consist primarily of items already assigned NSNs. The IMM Manual provides for submission of PSCN and Part Number SSR transactions to WIMMs for joint provisioning actions only. These joint provisioning generated SSRs are discussed in Section I. below. It is significant to note that the automated systems designs of the Services acting as WIMMs provide for processing all types of SSR transactions; while on a manual basis the operational review indicates first that few PSCN or Part Number SSR transactions are received and second when they are received, they are routinely rejected for support.

The functional elements responsible for packaging and mailing outgoing SSR transactions as a SICC are generally those elements where incoming SSR transactions are received and initially processed. The Army and Air Force automated system design provides for processing outgoing and incoming SSR transactions in the same program modules and using the same SSR Suspense File.

The Navy automated systems design provides for separate program modules and a separate SSR Suspense File for processing incoming and outgoing SSR transactions. The planned Marine Corps automated systems design does not provide for mechanized processing of incoming SSR transactions. The data collection results discussed in Volume III show the relatively small volume of WIMM transactions as compared to CIMM transactions. This small volume indicates that development of separate program modules and files for processing incoming SSR transactions does not appear to be justified and the automated processing of incoming SSR transactions should be combined with outgoing SSR transaction processing.

a. Inputs. Inputs to this processing phase generally consist of NSN SSR transactions and followup transactions. Because almost all SSR transactions received contain NSNs, offers of alternate or substitute items are seldom made; as a result offer reply transactions are seldom received for processing.

b. Files

WIMM activities generally maintain both automated and manual files. Each Component activity maintains an automated SSR Suspense File and is the same file that contains outgoing SSR transactions except in the Navy. The WIMM SSR Suspense File in the Navy has the same structure and is maintained in the same sequence as the SICC SSR Suspense File.

The manual files maintained are generally historical type files. These historical files contain the original SSR transactions submitted and the advice provided for each item. These files may be maintained on an item basis, as in the Navy, or on a PCC basis, as in the Air Force. These manual files are generally maintained for 180 days after advice is provided the SICC. This timeframe meets the IMM Manual criteria that IMMs must maintain a record of advice provided for 120 days; however, this timeframe makes automated matchup of change transactions which may be submitted up to two years after the DOR of the initial submission virtually impossible after the 120 days have elapsed and the file is purged. This same matchup problem also exists in the automated SSR Suspense Files where items are automatically purged 120 days to one year after advice is furnished.

Each WIMM activity maintains local cataloging files containing the same information as the DLSC TIR file. These local TIR files play an important role in incoming SSR processing. This role becomes clear in the discussion of major event processing below.

c. Processing. Incoming SSR transactions are processed on an item basis in the automated systems of each of the Services.

Manual processing actions are accomplished on a PCC package basis in the Army and Navy, and on an item basis in the Air Force and Marine Corps. The major events performed manually and those performed mechanically vary from Service to Service. This will be made clear in the discussion of each major event. The sequence of major events performed in this processing phase is shown by Service in Figure V-4.

WIMM SSR PROCESSING PHASE
SEQUENCE OF MAJOR EVENTS BY WIMM SERVICE

Army	Navy	Air Force	Marine Corps
-Validation/Edit	-Validation/Edit	-Validation/Edit	-Catalog Data
-Catalog Data	-Advice Decision	-File Maintenance	Screening
Screening	-File Maintenance	-Advice Decision	-Advice
-Advice Decision	-Catalog Data	-File Maintenance	Decision
-File Maintenance	Screening	-Method/Level of	-File Maintenance
	-Advice Decision	Support	nance
-Catalog Actions	-File Maintenance	-Requirements	-Catalog Data
-Requirements	-Catalog Actions	Determination	Screening
Determination	-Requirements	-Advice Decision	-Catalog
-Advice Decision	Determination	-File Maintenance	Actions
		-Validation/Edit	-Requirements
		-File Maintenance	Determination
		-Catalog Actions	
		-File Maintenance	-Advice
			Decision
			-File Maintenance
			nance

Source: Field Research

Figure V-4

This figure illustrates that while major events are generally performed in a similar sequence across the Services, the number of times certain major events are repeated (although they do indicate separate actions) extend the chain of major events especially in the Air Force. The major events as contained in the Conceptual Systems Model (Figure V-1) are.

- * Edit/Validation
- * Catalog Data Screening
- * Method/Level of Support
- * Requirements Determination
- * File Maintenance
- * Advice Decision
- * Catalog Actions

The major events as listed in Figure V-4 indicate the sequence performed as experienced during the operational review. Since only the Air Force had implemented automated data processing application for incoming SSR transactions during this review, the automated actions designed in the Army and Navy automated systems are not apparent. Due to the repetitive nature of some automated and manual actions, all actions performed for each major event are combined into a single subsection below. The major events are discussed in the sequence listed on the Conceptual Systems Model.

(1) Edit/Validation. This major event is generally performed first, both on a manual and an automated basis. The specific automated validation conventions and criteria are discussed in Volume III. There is a significant difference in the actions taken as a result of manual validation errors encountered versus automated validation errors encountered. When invalid data is found during manual validation, the data element is generally corrected and the SSR transaction continues processing. However, in the automated systems, a reject advice transaction is generated for transmittal to the SICC.

(2) Catalog Data Screening

Catalog Data Screening is performed by all Services during this processing phase. Screening on an automated basis is limited to local cataloging files or local TIR files and in the Air Force this is the only screening performed on incoming SSR transactions. Items not found on local files are screened against DLSC files by the Army, Navy, and Marine Corps. DLSC screening is manually initiated and screening replies are manually processed when received.

The local screening performed on an automated basis in the Army and Navy is a direct file, screen; i.e., the screening is performed in the SSR Application within the validation or file maintenance program modules. In the Air Force, local file screening transactions are generated and output to a separate application which then performs the screening action and returns the results to the SSR Application for further processing. In the Army and Navy items not matched in local files are file maintained and output for manual DLSC screening; matched items continue automated processing. All items whether matched or not are output for manual action in the Air Force after being file maintained. In the Army, Navy, and Marine Corps the results of screening actions bear directly on the advice decision while in the Air Force further actions are performed before the advice decision is made.

(3) Method/Level of Support. Although only Air Force procedures specify this event to be performed by an item manager, field research indicated it was either not performed at all or did not alter the current method or level of support provided for an item.

(4) Requirements Determination. The actions taken in the requirements determination area vary from Service to Service. The SSR data elements frequently used in the requirements determination process are the retail quantity, replenishment quantity and Unit of Issue. None of the Services reserve assets to meet SSR requirements. Some WIMMs under certain conditions will initiate procurement actions as a result of SSR processing. The Army automated SSR application performs an asset availability check and when sufficient assets are available for an item, an accept advice ATC 'YE' (unconditional support accepted) will automatically be generated for submittal to the SICC. The Navy automatically generates planned requirements transactions to be lodged in requirements files to be used in the requirements determination process for SSR items accepted for support. The Marine Corps places a hold on assets which would normally be declared excess in response to SSR requirements. The Air Force does not generally establish requirements on the basis of an SSR.

(5) File Maintenance

File maintenance actions applied to manual files differ from those applied to mechanized files both in content and technique on an intra and interservice basis. Generally the SSR data elements used for sequencing and control of these files include:

- * Document Identifier Code
- * Activity Code To
- * Type Change Code
- * Item Serial Number
- * Date of Request
- * Provisioning Control Code
- * Activity Code From

These data elements are not used consistently by all the Services for all files or even for all files within a single Service/Activity; however, these are the data elements generally described as controls by the Services. The sequence in which these data elements are used also differs among the Services/Activities.

Both active and completed items generally reside in the same file at WIMM activities regardless of whether that file is manual or automated. Manual files may be considered to be more complete than their respective automated counterpart because these manual files are updated with each incoming LISSR transaction prior to automated processing. When an invalid data condition is encountered in automated validation a reject advice is automatically generated for the item. In some automated

systems these invalid transactions are not posted to the SSR Suspense File as discussed in Volume III. However, these transactions do reside in the manual file and the reject advice is placed with the item as a history record of the action taken.

Manual files are generally maintained at two processing points. First, when SSR transactions are initially received they are posted to this file. The second file maintenance action is posting advice to each item. This is accomplished by annotating the advice beside each item when the file is a hard copy listing/ledger/etc. A duplicate advice transaction is generally placed with the original SSR transaction when EAM card files are maintained.

There are two processing points where automated files are maintained also. After SSR transactions are input to automated systems they undergo several processing actions before reaching the file maintenance action. These actions may include validation and catalog data screening among others. File maintenance at this point varies from Service to Service. Some automated systems post all valid and invalid, LISSR and Advice transactions to the SSR Suspense File; other automated systems are designed to post only valid transactions to the SSR Suspense File. Generally, only invalid data reject advice transactions are present at this processing point; however, some accept advice transactions may be present in the Army and Navy automated systems. These advice transactions are output for transmittal to the SICC. Items requiring an advice decision are output generally as a listing for manual review. The Navy system outputs a skeleton file maintenance card for each item requiring a manual advice decision. When the advice is determined, it may be entered in the file maintenance card and input to the automated system. This card then updates the SSR Suspense File and generates an advice transaction for transmittal to the SICC. The other Services manually code and keypunch advice transactions which must then be input to the automated system for validation and file maintenance. These automated systems also generate new advice transactions (identical to those input, when valid) for transmittal to the SICC.

Inquiries to the automated SSR Suspense File are also processed as file maintenance actions. The type of inquiries allowed in the Army and Air Force systems for incoming SSR transactions are identical to those for outgoing SSR transactions discussed under SICC SSR Processing Phase above. In the Navy, the automated systems design provides for a separate SSR Suspense File for incoming SSR transactions. The Navy automated systems design does not provide for inquiry capability to this

incoming SSR Suspense File; however, it does provide for the entire file to be listed as hard copy as the final processing step in every processing cycle.

Processing of incoming followup transactions fall under file maintenance processing. During the operational review, the Army and Navy which had not implemented their automated systems were performing a manual check of the incoming manual SSR History File to determine the response to be provided the SICC. The Marine Corps follows this procedure also. Under the Army and Navy automated systems design, followup transactions will be processed mechanically. The Air Force was processing followup transactions mechanically at the time of the operational review. The automated processing of followup transactions is generally the same in all automated systems. Each followup transaction is matched to the SSR Suspense File with a followup response transaction being generated automatically based on the results of the file match and the file contents. When the file contains advice information, the same advice is forwarded to the SICC in a followup response transaction. When a matching LISSR transaction is found, but no advice is present on the file; the Army and Navy output the followup transaction and the original SSR data as a functional notification that advice is overdue. In the Air Force, a followup response transaction containing ATC '67' (advice pending) is automatically generated for transmittal to the SICC - no functional notification is produced. When the followup transaction cannot be matched to a LISSR transaction on the SSR Suspense File the Navy and Air Force automatically generate a response using ATC '66' (no record) for transmittal to the SICC. In the Army, this no match condition creates an invalid transaction situation which is output on a functional notification for manual review and action.

(6) Advice Decision

The advice decision may be reached on an automated or manual basis and varies by Service. In the Marine Corps where no automated system exists, all advices are reached manually and are based on the results of catalog data screening. In the other Services automated advice decisions are reached as a result of validation. Invalid data reject transactions are automatically generated and output. In the Air Force, all other advice decisions are made manually. In the Army and Navy accept advice decisions (ATC 'YE') are mechanically reached under certain conditions as described in Volume II. The automated systems also provide for automatic generation of reject advice transactions when an offer reply transaction is not received from a SICC within 60 days of providing an offer advice transaction. When advice decisions are reached on a manual basis, this advice must be input

to the automated system to maintain an audit trail on the SSR Suspense File. The manual advice decision is reached by different functional personnel in the Services. In two of the Services, the accept decision is made by an Item manager after an asset availability check. Generally, reject decisions and accept decisions in the other Services are reached in the functional element where the SSR transactions are received. In one of these Services the initial accept decision is reviewed by an item manager and may be changed resulting in a second advice transaction to the SICC.

The IMM Manual contains a method of providing a new support date in an accept advice transaction when the Date Repair Parts Required (DRPR) cannot be met. The DRPR is a PDSSR transaction data element. The statistics from the DODSSR data collection as presented in Volume III show a low percentage of this accept advice being used by WIMMs. During the operational review, the Study Team found that while this data element was regularly provided to the functional element prior to the advice decision, it was rarely considered in making the advice decision. This low usage and lack of consideration could partially be due to the exclusion by the IMM Manual of applying this type of accept advice to items stocked by the IMM.

(7) Catalog Actions. Some of the automated systems are designed to perform catalog actions (primarily add user actions) as part of SSR processing. These catalog actions are generally based on the content of certain LISSR transaction data elements including Activity Code From, MOE rule, Item Identification Data Receiver and Item Identification Data Collaborator. In the Navy, an add user transaction will be automatically generated for transmittal to DLSC when the item is actively managed by the Navy and the SICC is not already registered as a user. When accept advice is input to the Air Force system, cataloging transactions are automatically generated for transmittal to CASO for further processing. CASO makes the determination of appropriate DLSC cataloging transactions. In the Army and Marine Corps, all catalog actions are taken manually and all resulting cataloging transactions are manually generated.

d. Outputs

Outputs external to the processing activity include advice transactions, followup response transactions, and cataloging transactions. Advice transactions and followup response transactions may be transmitted to the SICC via AUTODIN as specified by the IMM Manual. However, during the operational review it was found that these transactions are frequently mailed to the SICC in the same package groupings in which the corresponding LISSR transactions were received. In addition, some followups

were being received via telephone and were responded to by telephone. Catalog transactions generally consist of add user actions and are transmitted to DLSC (CASO by the Air Force) via AUTODIN.

Internal outputs generally include functional outputs for use in advice determination or maintaining manual files and inquiry replies. No management reports showing processing actions or statistics on a cumulative basis are produced. Transactions to update local inventory/requirements files may be generated either mechanically or manually. The Navy produces a skeleton file maintenance transaction for items which require manual review and advice decision. Each file maintenance transaction is completed by keypunching in the ATC and other advice data (new support date, etc). When these completed file maintenance transactions are input to the automated system, the SSR Suspense File is updated and an advice transaction is automatically generated. This practice of performing file maintenance prior to furnishing advice appears to be a good one and the method of using skeleton file maintenance transactions seems to be equally good.

e. Controls

The various data elements used for control are listed above in the processing subsection. Only three of these data elements are used universally. Provisioning Control Code, Item Serial Number and Date of Request. The usage and application of the others vary from Service to Service.

The primary internal controls are followups which are automatically generated from the Service systems. In the Army and Navy these internal followups are generated when a followup transaction received from a SICC matches a LISSR transaction in the SSR Suspense File, but there is no advice recorded in the SSR Suspense File. The Air Force automated system generates internal followups when advice is not present for an item 25 days after the item entered the automated system and was posted to the SSR Suspense File. These functional followups will be generated every 25 days until advice is posted to the file.

2. CIMM SSR Processing

CIMM activities include TARCOM in the Army, the four DLA hardware centers and GSA. Within the CIMMs, DLA dominates as the receiver of the vast majority of LISSR transactions. At the time of the operational implementation review only DLA had implemented their automated systems design. The Army systems design was sufficiently documented at that time to determine its impact on the manual processing experienced during the operational implementation review at TARCOM. The GSA automated system was in the

conceptual stage of design during the operational implementation review and the impact of this automated system on the manual process described in Volume II, Part 2, cannot be determined. Therefore, the discussion of CIMM SSR Processing is centered around DLA processing actions. The actions performed by TARCOM and GSA will be pointed out where they are known to be significantly different. The CIMM processing descriptions in Volume II, Part 2, are generally divided into three segments; one each for active NSN SSR Processing, Inactive NSN/PSCN SSR Processing and Part Number SSR Processing. Since the discussion here is on a more general basis, all SSR transactions are grouped together here with significant processing differences among these types pointed out where appropriate.

The Army has combined automated outgoing SSR transaction processing and automated incoming SSR transaction processing into a single SSR Application. The DLA and GSA acting predominately as SSR receivers (CIMMs) have designed their automated systems to process only incoming SSR transactions. DLA has designed this processing as a separate application under SAMMS; while GSA has designed automated SSR processing within its Cataloging System.

a. Inputs. The inputs under CIMM processing are the same as those discussed under WIMM processing. However, part number submissions constitute about 50% of the CIMM SSR transactions received. Also CIMMs routinely provide offer advice and therefore offer replies are received more often at CIMM processing activities than at WIMM processing activities. DLA activities were receiving followup transactions predominately via AUTODIN, while other activities (both CIMM and WIMM) generally receive followup transactions by mail.

b. Files

CIMMs, like WIMMs, tend to maintain both automated and manual files. In the Army, the same types of files are maintained on a CIMM basis as those discussed under WIMM SSR processing above. GSA maintains both EAM card files and hard copy listings of active and complete items. These manual files are maintained in the cataloging functional area and are generally purged two years after completion on a PCC package basis.

The files maintained by DLA are somewhat different from those maintained by other activities (both SICC and IMMs). Three distinct files are maintained on a manual basis. An EAM card file is maintained which contains the original SSR transactions received. These original SSR transactions are retained for an indefinite period (generally until the storage cabinets

are filled to capacity and more room is needed). A manual PCC package file is maintained which contains correspondence and hard copy listings resulting from automated processing of the items within the PCC package. This PCC package file is generally used as a history file and is maintained for two years after the package is completed. A separate manual file is maintained on an item basis while the item is being actively processed. When each item is completed this file is discarded. DLA maintains two automated SSR files. The SSR Suspense File contains items being actively processed and items are purged as they are completed. The automated SSR History File contains items passed from the SSR Suspense File as they are completed. Items are purged from the SSR History File on a PCC package basis one year after the last item within the package is completed. The fact that the structure, organization, and contents of these automated DLA files is different from those of the other Components is supported by the discussions in Volumes II and III.

There is one other manual file that was found during the operational review of DLA activities. A 3x5 card file is maintained for Part Number SSR transactions submitted with a Date Technical Data to be Supplied. This file is periodically reviewed and used to followup (by correspondence) to SICCs for submittal of promised technical data. When the data is still not received, action is taken by the DLA IMM to obtain the data directly from the manufacturer. This process in no way delays processing of the SSR transaction and appears to have potential for improving the quantity and quality of technical data received.

c. Processing

Processing of incoming SSR transactions is primarily on an item basis in the automated systems. The only automated processing accomplished on a package basis is package validation and purging records from the SSR Suspense File in the Army and SSR History File in DLA. GSA processing is performed primarily manually with some actions performed by Punched Card Accounting Machine (PCAM) equipment. The processing performed by GSA is totally on a package basis while actions performed by TARCOM and DLA seem to be a combination of package and item processing. For example, in DLA the initial processing of incoming SSR transactions until they are input to the automated system is performed on a package basis. Also, the manual and automated history files are maintained on a package basis. The remainder of the manual processing within DLA is keyed to items not packages.

The major events performed by each CIMM for Active NSN SSR transactions, Inactive NSN/PSCN SSR transactions and Part Number SSR transactions were discussed in Volume II, Part 2. Figure V-5 shows the major events performed while processing

Part Number SSR transactions by CIMM. This figure illustrates the variance in the sequence in which major events are performed and in the number of times certain major events are performed by different CIMMs. Although similar figures are not shown for Active NSN SSR transaction processing and Inactive NSN/PSCN SSR transaction processing, a review of these major events from Volume II, Part 2, shows the same variances. Note also the variance in the sequence of major events as shown in Figure V-5 as shown in the sequence in the Conceptual Systems Model (Figure V-1).

CIMM PART NUMBER SSR PROCESSING
SEQUENCE OF MAJOR EVENTS BY CIMM

Army	DLA	GSA
-Validation	-File Maintenance	-Validation
-Catalog Data	-Validation	-Advice Decision
Screening	-Advice Decision	-File Maintenance
-Advice Decision	-Method/Level of	-Validation
-File Maintenance	Support	-Advice Decision
-Catalog Data	-File Maintenance	-Method/Level of
Screening	-DLSC Screening	Support
-Advice Decision	-Advice Decision	-Catalog Actions
-File Maintenance	-File Maintenance	-Catalog Data
-Catalog Actions	-Advice Decision	Screening
-Method/Level of	-File Maintenance	-Advice Decision
Support	-Catalog Actions	-Catalog Actions
-Advice Decision	-File Maintenance	-File Maintenance
-Requirements	-Advice Decision	-DLSC Screening
Determination	-Requirements	
-File Maintenance	Determination	

Source: Field Research

Figure V-5

The discussion of major events that follows is in the sequence shown in the Conceptual Systems Model. All actions are discussed under each major event regardless of the number of times it may appear in actual processing as illustrated by Figure V-5.

(1) Edit/Validation. This major event is performed on an automated basis by TARCOM and DLA, and on a manual basis by GSA. There is a significant difference between these activities in the action taken when an invalid condition is found. The automated systems of DLA and TARCOM are designed to generate reject advice when an invalid condition is found. GSA will attempt to correct the invalid data and continue to process the SSR transactions. The specific data elements validated/edited/bypassed on both a manual and an automated basis as well as the automated validation criteria and conventions are presented in Volume III.

(2) Catalog Data Screening

This major event is performed by all CIMMs. The Army automatically screens its local TIR file; items not matched have DLSC screening transaction initiated on a manual basis. All catalog data screening replies are manually processed in the Army. GSA also screens local catalog files first and performs DLSC screening only on those items not matched on local catalog files. All GSA screening is manually processed. The catalog data screening performed by DLA is significantly different than that performed by other CIMMs or by WIMMs.

Even though all DLA centers maintain a local TIR file, SSR items are screened only against DLSC files. This process is totally automated in DLA both in transaction generation and reply processing. All types of SSR items are screened against DLSC files including NSNs, PSCNs and part numbers. Part number items are screened using 'P' type screening which requires entrance of the Reference Number Format Code, Reference Number Variation Code and Reference Number Category Code from the SSR transaction. Screening replies are mechanically processed resulting in Advice Decisions and Catalog Actions.

(3) Method/Level of Support.

The time at which this major event is performed in relation to other major events is significantly different among IMMs. Note in Figure V-5 that this major event is performed prior to Catalog Data Screening in DLA and GSA, while in TARCOM it is processed much later in the processing sequence. TARCOM and GSA perform this major event manually. An item manager makes this determination in TARCOM using the Replenishment Quantity, Retail Quantity, and Unit of Issue. GSA generally assigns AAC = 'J' to all provisioning SSR items as a matter of policy.

DLA determines the method/level of support on an automated basis using the AAC recommended in the SSR transaction, the Source Code, the Replenishment Quantity, Production Lead Time and Unit Price. The method/level of support is determined using a filtering technique. For certain essential weapons systems, arrangements may be made with DLA to bypass part of this filter and to stock items as an NSO item when they do not meet the criteria for stockage based on demand. This bypass is accomplished using PCC/ACF combinations, not the Weapon System Code in the PDSSR transaction.

(4) Requirements Determination. As shown in Figure V-5, this major event is not performed by GSA which means that GSA does not initiate procurement action or forecast requirements

based on SSR quantities. In the Army this major event is performed by the item manager as discussed under WIMM SSR processing above. Within DLA, SSR quantities are passed to the requirements subsystem as the final processing event for items on which support is accepted and which are determined to be stocked items. The requirements subsystem produces functional outputs for review by item managers.

(5) File Maintenance

The file maintenance actions performed by TARCOM as a CIMM are similar to those performed by Army as a WIMM discussed above. These actions are not repeated here. The SSR data elements generally used for sequencing and control of manual GSA files and both manual and automated files in DLA include:

- * Activity Code From
- * Provisioning Control Code
- * Item Serial Number
- * Date of Request

Not all of these data elements are used for all SSR files and the sequence in which these data elements are used varies from file to file.

Unlike WIMM files, there are generally separate files maintained for active items and completed items by CIMMs. However, the manual files maintained tend to be more complete than the automated files. A good example of this is the files maintained by DLA. The automated files contain records on most invalid SSR transactions and all valid SSR transactions except change SSR transactions. Only superseding change SSR transactions are posted to automated SSR files. Manual SSR files (particularly the PCC file) contain records of all SSR transactions received including valid and invalid SSR transactions and change SSR transactions.

In GSA, two types of file maintenance actions exist. The first is establishing incoming SSR transactions in manual files. The second action is posting SSR advice to each item in the file. This second file maintenance action may be posting of initial advice or final advice; and when the advice is final (e.g. NSN Notification), it is generally the final action taken relative to SSR processing.

File maintenance actions occur several times during DLA processing as shown in Figure V-5. The first file maintenance action is establishing a manual PCC folder for the incoming package. After validation, most invalid SSR transactions and all valid SSR transactions are posted to the automated

SSR Files. Invalid SSR transactions have the reject advice posted to the manual PCC files and valid SSR transactions have DLSC screening transactions mechanically generated for AUTODIN submittal. When DLSC replies result in an advice decision, this advice is posted to the automated SSR files and to the manual PCC file. At this point matched PSCNs and unmatched Part Numbers are output for manual review. This manual review is conducted on an item basis and results in accept, offer, or reject advice. This advice is input to the automated system using file maintenance transactions which update the automated SSR files and result in updating of the manual PCC file. When NSN assignments are received from DLSC, the automated SSR files are again updated and the manual PCC file is also updated. When SSR change transactions are received they are listed after validation and this list is placed in the manual PCC file. As mentioned above, only superseding item changes are posted to automated SSR files. So it may be seen that while file maintenance actions occur several times during the SSR processing cycle, they generally serve to post new items to these files or post advice to these files.

Inquiries to the automated SSR files in DLA are processed as file maintenance actions. These inquiries are input as file maintenance transactions and may request information on an item or a PCC basis. Inquiry transactions are first matched against the SSR Suspense File. When the inquiry is for an item and the information is located on the SSR Suspense File, the information is output for printing and the inquiry process ends. When the item is not found on the SSR Suspense File, the inquiry then is passed to the weekly processing cycle for matching against the SSR History File. Inquiries requesting information on a PCC basis are matched to both the SSR Suspense File and the SSR History File.

Followup transactions received from SICC's are also processed as file maintenance actions. In GSA, followup transaction processing is totally manual, while in DLA this processing is totally automated. When followup transactions are received by GSA, the SSR History files are first checked to determine if advice has been determined and, if so, this same advice is returned in a followup response transaction. When the item cannot be located in the SSR History File, when the active file is checked to determine the processing status of the item. When the item is still being processed within GSA (advice has not been determined) pending advice is returned on the followup response transaction. When the item cannot be located, the followup response transaction contains an ATC '36' (Other). This is a significant variation from other IMMs who generally use ATC '66' (No Record) when a item is not found in IMM files.

Followup transactions received by DLA are input to the automated system for processing either directly when received via AUTODIN or manually when received by mail. The automated system matches the followup to the SSR Suspense File first and, if found, generates a followup response transaction based on the advice in the file record. When no advice has been posted to the file record, pending advice is used in the followup response transaction. When the item is not located on the SSR Suspense File, the followup transaction is passed to the weekly processing cycle for matching against the SSR History File. Items not found in the SSR History File have followup response transactions generated containing "no record" advice.

There is one other type of followup within the DLA system which warrants discussion. This type of followup was not found by the study team in any other Component automated systems design nor was it being manually generated at any of the other Component activities visited. When offer advice is returned to SICCs by DLA, the automated SSR system sets up a suspense within the item record. When an offer reply transaction has not been received within 30 days from the date of the offer advice a listing is generated relating this fact to functional personnel. When an offer reply transaction has not been received after 45 days a second listing is generated. The receipt of an offer reply transaction cancels this suspense. These listings are produced to be mailed to the SICCs reminding them that an offer reply must be submitted to avoid rejection of the item. It must be noted that in the procedures in effect prior to implementation of the IMM Manual, this type of followup was documented. This concept of following up for a reply to offer advice has merit and should be considered for automation both in terms of generation and transmittal by all IMMs as a standard procedure.

(6) Advice Decision

This major event is accomplished by the Army as a CIMM in the same manner as described for the Army under WIMM SSR processing above. However, there are two significant differences worth noting. First, since TARCOM as a CIMM must support items assigned, Part Number SSR transactions cannot be routinely rejected as they are by WIMMs. This requires TARCOM to perform item entry control for these part number items and results in generation of offer advice to the SICCs. The Army automated SSR system is designed to suspense these offer advices and when an offer reply is not received within 60 days, a reject advice transaction is automatically generated for transmittal to the SICC containing ATC '08' (No Reply to Offer). The second processing action is consideration of the accept advice and support date. As discussed in Volume II, generally when items

reach the item manager for processing they have already been accepted for support. The TARCOM item manager reviews the SSR transaction quantities and unit of issue in conjunction with existing local records on the item to determine the applicable accept advice ATC. The TARCOM item manager also reviews the Production Leadtime and DRPR from the SSR transaction to determine if a support date need be provided the SICC, and if so, what that support date should be. After these determinations are made, the item is forwarded to the functional area responsible for providing the advice to the SICC.

All advice decisions within GSA are made on a manual basis. For NSN SSR transactions, the advice is generally accept (provided it is an item managed by GSA as determined from catalog data screening). When catalog data screening indicates the item is managed by another IMM, the item is rejected. When catalog data screening or item entry control identifies a standard item, replacement item or an existing NSN for a part number, these are generally transmitted to the SICC as offer advice, even though current SSR Procedures specify a reject for this condition. GSA also rejects SSR transactions using ATC '08' when offer replies are not received within 60 days; however, the suspense and review is on a manual basis within GSA. GSA generally does not review SSR transactions for determination of a new support date due to the almost exclusive use of ATC 'YD' (Centrally Procure on Demand).

DLA's automated system is designed to make many more advice decisions than the other Component systems. Generally reject advice decisions based on invalid data are made on an automated basis as part of all Component automated system designs. The significant difference is in the automated advice decisions made from DLSC screening results. As described above, other IMMs generally process all screening replies on a manual basis. DLA performs several actions on an automated basis. It is this automated processing of DLSC replies that distinguishes the DLA automated system from the other Components' automated systems. NSN screening replies are analyzed to determine the manager, AAC and other data. When the screening indicates DLA is the manager, an accept advice transaction is automatically generated for transmittal to the SICC. The accept advice ATC for these items as well as other accepted items discussed below is determined on an automated basis. The automated system determines an AAC for each SSR item as discussed under Method/Level of Support above. This AAC is compared to that received in the DLSC reply and the highest level is used to determine the ATC to be used in the accept advice transaction. The automated system also performs a support date determination using the PLT and DRPR as described in Volume III. The new support date determination and the AAC are used to determine the ATC to be returned to the SICC. When an NSN is not matched in DLSC

files or the NSN is managed by another IMM, cancelled, etc.; reject advice transactions are automatically generated for these conditions. When part number screening replies indicate a match to an NSN in DLSC files, reject advice transactions are automatically generated for these items. Advice decisions are made manually for PSCNs matched to DLSC files and Part Numbers not matched to DLSC files. Manual advice is generally either accept or offer. The reject advice determined on a manual basis is usually limited to lack of technical data. As with the other Component automated systems DLA suspenses offer advice for 60 days and when a reply is not received a reject advice (ATC '08') transaction is automatically generated. In addition when an NSN assignment for an SSR transaction submitted with a part number is received from DLSC, the NSN is passed to the SSR system which automatically generates an NSN Notification transaction.

(7) Catalog Actions

Within the Army, TARCOM as a CIMM, generates catalog actions on a manual basis. The catalog actions most often used include add user actions and NIIN requests. The automated system design in the Army provides for automatic generation of add user transactions for activities submitted on additional user transactions. GSA as a manually oriented activity generates all catalog actions manually.

Catalog actions are generated as a combination of manual and automated actions within DLA. Many catalog actions resulting from SSR processing are produced mechanically. These include the generation of add user transactions for the SSR submitter and the activities included in additional user transactions, generation of cataloging transactions to reactivate inactive NSNs, and updating of DLSC catalog management data such as upgrading of the level of support (AAC). Additional reference numbers submitted with LISSR transactions require manual review and generation of DLSC add reference number transactions. NIIN assignment requests to DLSC are partially generated on an automated basis and partially generated on a manual basis. The request data generated mechanically include Segments B and H which are developed using SSR data elements; e.g.,

- * Activity Code From
- * Additional User Activity Codes
- * AAC (Recommended or as determined)
- * Unit of Issue
- * Unit Price
- * Shelf Life Code

Other request data must be manually generated using submitted technical data; e.g., item name and FSC from item name transaction when submitted.

d. Outputs

CIMM activities produce both external and internal outputs. Generally external outputs include advice transactions, followup response transactions and cataloging transactions. Advice and followup response transactions are transmitted to SICC's using mail or AUTODIN. DLA uses predominantly AUTODIN, while other IMMs use predominantly mail. Cataloging transactions are generally transmitted to DLSC using AUTODIN. DLA produces one other external output in the form of 30 and 45 day offer reply followups. These hard copy listings are mailed to the appropriate SICC's.

Internal outputs include functional listings and skeleton file maintenance cards (DLA only) for use in advice determination, updating manual files and providing advice to the automated system. There are no cumulative management reports produced, although some statistics are accumulated and output on a cyclic basis. Transactions to update local files (e.g., requirements files) may be generated on a manual or automated basis. The DLA concept of using file maintenance transactions is similar to that described for the Navy under WIMM SSR processing above and has the same advantages. The inquiry results received from the DLA automated system are significantly different from those received from other Component systems. The DLA system provides a formatted response which includes only basic information; such as, control elements, item identifier, advice (ATC), NSN assigned, etc. This type of inquiry response is not sufficient for functional personnel to determine why certain actions are taken and whether or not those actions are appropriate.

e. Controls

Controls used by the Army as a CIMM are the same as those used by the Army when acting as a WIMM and are discussed under WIMM SSR Processing above. The primary control within GSA is the manual file maintained for active items. This file is monitored for completion of SSR transactions and receipt of offer reply transactions. When advice has not been determined 25 days after receipt, a pending advice transaction is manually generated and mailed to the SICC. When an offer reply has not been received within 60 days of advice, a reject advice transaction containing ATC '08' is manually generated and mailed to the SICC.

DLA has both manual and automated controls built into its system. The primary manual control is the manual 3x5 card file maintained for items on which technical data was promised, but not submitted. This file is used as a control for

following up to the SICC for submittal of this promised data. The automated system takes care of the 25 day pending advice and no reply to offer reject advice handled manually by GSA as described above. The DLA automated system also produces a functional overage report as a controlling feature. Items appear on this report at three stages. An item appears on Part I of this report when it has been on the SSR Suspense File for 12 days without advice determination. When the 25 day initial advice limit is reached or in the case of part numbers awaiting NIIN assignment, items appear on Part II of this Report. Items appear on Part III of this Report when advice is overdue. This Report is used by functional personnel to expedite processing of these items, particularly those appearing in Part III.

F. SICC SSR ADVICE PROCESSING PHASE

This processing phase begins upon receipt of advice transactions or followup response transactions by the SICC from IMMs. Processing is accomplished in this phase on an item basis by all SICC's. Followup response transactions are processed as advice transactions by all SICC's.

1. Input. The inputs to this processing phase include accept advice transactions, offer advice transactions, reject advice transactions, NSN notification transactions, followup response transactions and associated technical data. The transactions may be received by mail or by AUTODIN. The technical data is received by mail and consists of returned technical data for items rejected by the IMM or technical data (e.g., DLA Form 546) furnished with an offer advice transaction.

2. Files. The files used in this processing phase are the same files discussed in the Provisioning Processing Phase and SICC SSR Processing Phase above.

3. Processing. Both manual and automated processing in this phase is done on an item basis by all SICC's; however, the processing actions done manually versus those performed mechanically varies from Service to Service. In addition, followup response transactions are generally processed as advice transactions and will not be discussed separately. The Conceptual Systems Model shows this processing phase consisting of three major events.

- * File Maintenance
- * Advice Review
- * Notification Actions

During the operational review the study team found that not all SICC's performed all of these major events and that some SICC's performed additional actions. These findings are illustrated in Figure V-6.

SICC SSR ADVICE PROCESSING PHASE
SEQUENCE OF MAJOR EVENTS BY SICC

Army	Navy	Air Force	Marine Corps
-File Maintenance -Catalog Data Screening -Advice Review	-File Maintenance -Advice Review -File Maintenance	-Validation -File Maintenance -Advice Review -Notification Actions -File Maintenance	-File Maintenance -Advice Review -File Maintenance -Notification Actions

Source: Field Research.

Figure V-6

This figure shows the variation in both the major events performed by the different SICCs and the variation in the sequence in which they are performed. Because of the variation in number and sequence of major events among the SICCs, each major event will be discussed below in the following order:

- * Validation
- * File Maintenance
- * Catalog Data Screening
- * Advice Review
- * Notification Actions

SSR advice transactions are generally received in the functional area which has the responsibility for mailing outgoing SSR transactions to IMMs. The advice transactions are usually initially processed by this functional element and, when required, subsequent actions; i.e., SSR resubmittal, are performed here.

a. Validation. During the operational review only the Air Force was validating incoming advice transactions. This validation is performed on an automated basis in the Air Force automated SSR system. The SSR systems designs of the Army and Navy also provide for automated validation of incoming advice transactions. Although the particular validation criteria and conventions are discussed in Volume III, there are two key points in this major event repeated here. First, a key portion of this validation is a match on control elements (which vary by Service) to a LISSR transaction on the SSR Suspense File. Second, if an invalid condition on an advice transactions is found, there currently is no way provided by the IMM Manual for communicating this to the IMM. This has led to development of Service unique error codes for internal use as discussed in Volume III.

b. File Maintenance. This major event generally consists of posting advice to the automated and manual files maintained by SICC's. In the Navy, when an offer is posted to the SSR Suspense File, a skeleton file maintenance transaction is automatically generated for functional use. This file maintenance transaction is designed to be completed by functional personnel. The accept or reject decision is to be entered in the file maintenance transaction which is then to be input to the automated system which will post the accept or reject decision to the SSR Suspense File and generate offer reply transactions to be returned to the IMM. The Navy and Air Force systems set up suspenses which generate internal followups when not met. These followups and suspenses are discussed in the controls subsection below.

c. Catalog Data Screening. This major event is performed only by the Army and is a totally manual process. The stated purpose of performing catalog data screening when accept advice is received is to verify that the IMM took proper actions to add Army as a user of the item. It also is used to obtain the assigned NSN for part number SSR items earlier than receipt by NSN notification transaction under the SSR system.

d. Advice Review. The advice review performed varies distinctly depending on whether the advice is accept, reject or offer. Therefore, each of these categories are discussed separately. However, it must be noted that technical data must be returned by IMMs for Part Number SSR submittals rejected and must be provided with offer advice transactions. When the offer advice transactions are transmitted via AUTODIN and the technical data mailed, the SICC must wait for the arrival of the technical data before the advice review can be performed.

(1) Accept Advice. This type of advice is given a cursory review and is used primarily in conjunction with NSN notification transactions to complete processing of SSR items. When accept advice is posted to the SSR Suspense File in the Navy, listings are generated for items assigned ACC 'J' by the IMM and items which could not be supported by the DRPR. The functional user may then take appropriate action to initiate requisitions for items on the AAC 'J' listing and to purchase part or all of the retail quantity from the end item contractor for items which could not be supported by the DRPR.

(2) Reject Advice. Reject advice is reviewed to determine if the reject is caused by a validation error, improper management or technical data on the LISSR transactions, or a support reject based on improper IMC coding, etc. The functional element receiving the advice transaction generally determines the correct entry for invalid data rejects and generates SSR

resubmission transactions. These are mailed to the IMM, after automated validation and posting to the SSR Suspense File. When a reject is received due to improper data, other functional personnel (cataloger, equipment specialist, provisioner, etc.) may be contacted to provide the correct data for SSR resubmission transactions. Generally, when a support reject is received, the SICC must become the IMM for the item. When this occurs in the Air Force, the item is returned to the provisioner and a file maintenance transaction is manually generated to delete the item from the SSR Suspense File. The Air Force automated system automatically processes some reject transactions. These reject advice transactions are posted to the SSR Suspense File and SSR resubmissions are automatically generated for mailing to the appropriate IMM. The specific rejects ATCs automatically processed are described in Volume II, Part 1, but generally include cases where a part number or nonstandard item was submitted and the IMM matched the Part Number to an NSN in DLSC files. In this case the IMM returns the matched NSN in the reject advice transaction and the Air Force generates an NSN SSR transaction for resubmittal.

(3) Offer Advice. The Air Force has an established procedure for processing offer advice transactions which is significantly different from the action taken by other SICC's. In the Air Force offer advice transactions and technical data are forwarded directly to CASO, the central cataloging activity for the Air Force, for processing. A copy of the advice transaction is sent to the SSR submitter. The accept or reject decision is made at CASO, and CASO generates offer reply transactions to the IMM. CASO also provides the provisioning ALC with a notification of the accept/reject decision. At other SICC's, the accept/reject decision is generally made by provisioning or equipment specialist personnel at the SICC activity. Offer reply transactions are then generated at the SICC activity and transmitted to the IMMs.

(4) No Record Advice. When a followup response transaction is received by a SICC indicating the IMM has no record of receiving the original SSR transactions, the SICC generally regenerates the original SSR using a new DOR and mails it to the IMM for processing. This regeneration is done on an automated basis by the Navy and Air Force, and manually in the Army and Marine Corps.

e. Notification Actions. Except for the provisioning system/SSR system interface in the Air Force, notification actions are generally performed on a manual basis. When accept advice received on an offered item is accepted by the SICC or a support reject advice is received, the functional area within the provisioning activity responsible for fielding the end item

is notified using a listing showing the item and the advice. This functional area uses the notification to update provisioning and local catalog files and to initiate other actions when necessary.

4. Outputs

Outputs produced for external use or transmittal consist of offer reply transactions and SSR resubmittals. These transactions are generally mailed to the IMM for processing.

Outputs produced for internal use generally consist of functional listings. Cumulative management reports are not produced; however, some cyclic statistics are produced such as number of reject advices received during the cycle, etc. As discussed above, the Navy automated system generates skeleton file maintenance transactions for use in replying to offer advice transactions.

5. Controls. The controls used in this processing phase generally parallel those used in the SICC SSR processing phase discussed above. There are certain automated controls used by the Navy and Air Force in this processing phase which require discussion. Both the Navy and Air Force maintain an automated suspense for generation of SSR resubmittals when reject advice is received. This suspense varies from 30 days to 40 days; however, both systems generate functional followups when the SSR resubmittals have not been input to the automated system within the suspense period. The Air Force automated system also maintains a 15-day suspense for offer advice transactions. Again when an offer reply transaction has not been input to the automated system within 15 days of receipt of the offer advice a functional followup is generated. These resubmittal suspenses were determined by the respective Services since the IMM Manual contains no standards or goals in this area.

G. NONPROVISIONING SSR PROCESSING

The processing of nonprovisioning items parallels that of provisioning items in terms of actions and major events. There are areas where important processing differences do exist. These differences lie primarily in how nonprovisioning items are initiated, the events performed manually versus those performed by an automated system, and the assignment of certain control data elements. There are differences in IMM processing actions and SICC SSR advice processing actions which will also be discussed.

1. Nonprovisioning Processing Phase

While all provisioning SSR items originate from the provisioning process, nonprovisioning SSR items emanate from several sources which vary from Service to Service. There is one source

common to the Services. Item recommendations from field activities generally become nonprovisioning SSR candidates in each Service except when the Service already manages the item. Other sources vary from Service to Service, but include follow-on and reprovisioning efforts, items determined to be nonsupport items during the provisioning process but subsequently needed for support, and items which enter the Service system through processes other than the provisioning process.

The processing performed on nonprovisioning items is performed manually in this processing phase, while many provisioning item actions in this processing phase are automated. There is no automated system for processing nonprovisioning items equivalent to the automated systems that exist for processing provisioning items, and nonprovisioning items generally are not input to the automated provisioning system. In addition, requirements computations are usually performed manually by an item manager for nonprovisioning items, while the Army and Navy SICC's have automated requirements computation applications used for provisioning items.

SSR generation criteria for nonprovisioning items is generally the same as the SSR generation criteria for provisioning items. However, there is one significant difference in this criteria for nonprovisioning items. This difference is the use of IMC adopt transactions in lieu of SSR transactions for nonprovisioning items for which NSNs exist. These IMC adopt transactions are used by the Air Force and Marine Corps, but not by the Army and Navy.

The two most important control data elements are assigned significantly different for provisioning SSR items versus those for nonprovisioning SSR items. These data elements are PCC and ISN. These control data elements are generally assigned in the provisioning documentation early in this processing phase for provisioning items, while for nonprovisioning items, these data elements are generally assigned in the SICC SSR processing phase. There is also a significant difference in how these data elements are assigned. In the provisioning process, a single PCC is usually assigned to a single end item/weapon system/provisioning list and the PLISN from the provisioning list is usually used as the ISN. The PCC for nonprovisioning items may be assigned based on a single PCC for a single activity on a single PCC for each person generating nonprovisioning SSR transactions or some other criteria. The ISN is generally assigned beginning with 000001 each day and progressing sequentially. The 000001 ISN may appear only once on each day or may appear only once per SSR generating individual each day depending on the SICC. The methods used for assigning the PCC and ISN for nonprovisioning items is causing different item identifiers to be assigned identical control data elements as described in Volume III.

2. SICC SSR Processing Phase. The actions performed in this processing phase for nonprovisioning items are similar to those performed for provisioning items. The major difference lies in the assignment of some SSR control data elements for nonprovisioning items in this phase. Also while automated systems exist to generate SSR transactions for provisioning items, nonprovisioning SSR transactions are manually generated. The processing within the automated SSR system design of each of the Services is the same for provisioning and nonprovisioning SSR transactions; however, it was found during the operational implementation review that some activities were not using the automated SSR system to process nonprovisioning SSR transactions. The same types of manual actions and files are performed/maintained for both provisioning and nonprovisioning SSR transactions in this processing phase.

3. IMM SSR Processing Phase. A distinction is made between provisioning and nonprovisioning SSR transactions in the level of support provided and the funding/budgeting area. All other manual and automated actions are identical. The level of support determination for nonprovisioning SSR transactions differs from this determination for provisioning SSR transactions in the Army and GSA. The Army routinely assigns nonprovisioning SSR items a level of support equating to AAC 'J' (Centrally Procure, Nonstock). GSA normally assigns a level of support equating to AAC 'J' or AAC 'L' (Local Procurement). A distinction is made by DLA in that nonprovisioning items supported are assigned a funding code different from that assigned to provisioning items.

4. SICC SSR Advice Processing Phase. There are two variations in this processing phase. When an offer advice is received, at least one activity was forwarding the offer to the item originator (field activity) for the offer accept/reject decision. Advice and NSN notifications for nonprovisioning items are forwarded to the item originator.

5. Summary

The primary differences between provisioning item and nonprovisioning item processing include:

- SSR generation criteria.
- Assignment of SSR control data elements.
- Method of Support/level of support determination by IMMs.
- Automated processing in SICC automated SSR applications.

The determination of the SSR generation criteria to be used is outside the scope of the study; however, it would seem that the same criteria should be used for provisioning and nonprovisioning items. The assignment of SSR control data elements

is causing duplicate or apparent duplicate SSR submissions to be made. SSR control data elements should be assigned in a format and content to preclude generation of these duplicate transactions. Nonprovisioning SSR transactions should be input to SICCs automated SSR applications for validation and posting to the SSR suspense file in the same manner as provisioning SSR transactions. The IMMs should not be using the provisioning/nonprovisioning distinction in making method/level of support determinations. Since these differences appear to be either invalid in concept or an apparent abuse of the system as a whole, the distinction between SSR transactions for provisioning items and nonprovisioning items should be eliminated and these items should be processed identically by both SICCs and IMMs.

H. SSR CHANGE TRANSACTIONS

1. General

The IMM Manual provides for preparation and submission of changes to SSR transactions when a review of design changes indicates a change in the quantities of items for which supply support has been previously requested. A time limit of two years from the DOR of the initial submission is established by the IMM Manual for the submission of changes. Subsequent to two years, increases in quantities should be submitted as new requirements for established items.

The IMM Manual provides a Type Change Code (TCC) to distinguish initial submittal provisioning SSR transactions, nonprovisioning SSR transactions and SSR change transactions from one another. The relationship between the TCC and type of SSR transaction is shown in Table V-7. As shown by this table, separate TCCs exist for use in PDSSR transactions and LISSR transactions except for nonprovisioning SSR transactions.

The instructions for completing PDSSR transactions indicate that a PDSSR transaction with TCC = 'P' shall be submitted when end item program changes occur or design changes affecting quantity fields on initial submission LISSR transactions occur. If the end item program data in the PDSSR transaction is the only change, the instructions infer that only the PDSSR transaction need be submitted. These instructions indicate that changes are to be submitted only for PDSSR and LISSR transactions which were originally submitted under TCC = 'N.' This indicates that changes are not to be submitted for nonprovisioning SSR transactions. Instructions for completing the TCC for LISSR transactions calls for entering a TCC = 'V' for nonprovisioning SSR transactions and entering an appropriate TCC in provisioning LISSR transactions only when the associated PDSSR contains a TCC = 'P.'

TCC/SSR TRANSACTION RELATIONSHIPS

TCC	TYPE SSR TRANSACTION
N	Initial Submittal PDSSR Transaction
V	Nonprovisioning PDSSR or LISSR Transaction
P	PDSSR Change Transaction
Blank	Initial Submittal LISSR Transaction
C	Change in LISSR Transaction Quantities to Increase Retail or Replenishment Quantity
D	Change in LISSR Transaction Quantities to Decrease/Delete Retail or Replenishment Quantity
R	Superseded Part. Reduce LISSR Transaction Retail and Replenishment Quantities by the Amount Reflected.
S	Superseded Part. Provide LISSR Transaction Retail and Replenishment Quantities Reflected.
T	Correction of Technical or Clerical Errors other than Retail and Replenishment Quantities to LISSR Transaction for Which Accept Advice has been Received.

Table V-7

The IMM is required to provide advice transactions only for SSR Change transactions containing TCC equal to 'S.'

2. Processing Considerations. The generation and processing of SSR change transactions from both a SICC and IMM basis varies widely among the Components. This variation carries through in both the Systems Design and Operational processes reviewed.

a. Systems Design

The variations in systems design lie primarily in the areas of automated generation of SSR change transactions, package validations, match validations, and SSR Suspense File posting. Of the Service SICC's, only the Army includes automated generation of some SSR change transactions. The Army systems design provides for automatic generation of SSR change transactions affecting the retail and replenishment quantities of previously submitted provisioning SSR transactions. When changes to these quantities occur an SSR candidate is passed to the SSR converter program module of the CCSS SSR Application (see Volume II, Part 1). This SSR candidate is converted into a PDSSR transaction with TCC = 'P' and a LISSR transaction with TCC = 'C' when quantities are increased, or TCC = 'D' when quantities are decreased. All other SSR change transactions in the Army and all SSR change transactions in the other Services are generated on a manual basis. These manually generated SSR change transactions may then be input to the SICC automated SSR Application.

Package validations are generally the same from Component to Component and consist of a check for a PDSSR with TCC = 'P' accompanied by one or more LISSR transaction with TCC = 'C,' 'D,' 'R,' 'S,' or 'T' and vice versa. Also LISSR transactions with TCC = 'R' are checked to ensure they are accompanied by a LISSR transaction with TCC = 'S.' Only one Component makes a check on both a SICC and IMM basis for a PDSSR with TCC = 'P' and not accompanied by associated LISSR transactions. Although this condition appears to be valid as mentioned above, the other SICC and IMM will reject this PDSSR transaction as a package error.

Match validation of SSR change transactions generally consists of matching these transactions on control data elements to initial submission SSR transactions on the SSR Suspense File. As discussed in Volume III, generally the Services as SICC and IMM perform this match validation while DLA as a CIMM does not. Whether or not this validation is performed and the results of this validation has a direct bearing on the posting of SSR change transactions to the SSR Suspense File.

The posting of SSR transactions to Component SSR Suspense Files was presented from a system design standpoint in Volume II and from a validation standpoint in Volume III. A review of these discussions shows the wide variance of transaction posting practices among the Components. The Army generally posts all valid transactions and most invalid transactions including SSR change transactions to its SSR Suspense File. The Navy maintains separate SSR Suspense Files for outgoing and incoming SSR transactions. Only valid SSR change transactions (no data elements in error, proper package format, and match to initial submission on file) are posted to the SICC SSR Suspense File. All incoming SSR change transactions are posted to the WIMM SSR Suspense File. In the Air Force, only valid SSR change transactions are posted to the SSR Suspense File. The Air Force performs the match validation for SSR change transactions and the match must be an initial submission provisioning LISSR transaction or a nonprovisioning LISSR transaction. DLA does not perform the match validation and posts only LISSR change transactions with TCC = 'S' to its SSR Suspense File. These LISSR change transactions are processed as an initial submission by DLA.

Within each Service SSR Application, SSR change transactions are posted to the SSR Suspense File and validated to maintain an audit trail of the item required on an SICC basis. From an IMM viewpoint, when these transactions are validated and posted to the SSR Suspense File, it is done also to maintain an audit trail except for those with TCC = 'S.' SSR change transactions with TCC other than 'S' are generally listed for manual processing by an item manager. The automated processing for SSR change transactions containing TCC = 'S' was described in Volume II.

b. Operational Implementation

During the operational implementation review, only one activity was found to have a specific procedure for generating and processing SSR change transactions on a manual basis. These SSR change transactions are generated from Design Change Notices (DCNs) for Provisioning SSR transactions previously submitted. All other SICC's reviewed had no established procedures for generating SSR change transactions; however, all SICC's indicated that SSR changes requiring a TCC = 'T' are not generated. One activity reviewed indicated that TCCs C, D, R, S & T were not used and SSR change transactions were submitted as initial submittals.

The only SSR change transactions which were found to be regularly processed by IMMs are those containing a TCC = 'S.' These are processed as initial submittal SSR transactions. The remainder of the SSR change transactions received are generally listed for manual functional processing generally by an item manager. Whether or not item managers actually review these items or take any specific actions based on receipt of these transactions is unknown.

3. SSR Change Transaction Volumes. The volumes of SSR change transactions were presented in Volume III. These volumes are summarized in Figure V-8 below.

SSR CHANGE TRANSACTION VOLUMES

Category		% of Category
PDSSR	SICC to CIMM	1.0
	SICC to WIMM	0.2
LISSR	SICC to CIMM	0.4
	SICC to WIMM	0.1

Source: DODSSR Data Collection.

Figure V-8

The extremely low volumes indicate that either DCNs requiring SSR change transactions are not occurring, or the IMM Manual is unclear as to when SSR change transactions are required or should be generated, or SICC's are submitting SSR change transactions without the appropriate TCC entered.

4. Summary

The IMM Manual provides criteria for when SSR change transactions are required, procedures for generating these SSR change transactions and conditions under which advice is required

from an IMM. The low volume of SSR change transactions in conjunction with the variety of generating and processing methods on both an automated and manual basis indicate that the IMM Manual is not specific enough and, in fact, leaves much to individual interpretation.

The fact that some activities submit SSR change transactions for nonprovisioning SSRs and others do not, and that some automated validations allow changes to nonprovisioning SSRs while others do not, shows clarification is required in this area. The posting or nonposting of SSR change transactions to SSR Suspense Files in terms of an audit trail must be further defined. In addition, allowing changes to be submitted for two years after the DOR and providing for a 120-day audit trail prior to file purge seems to be contradictory and should be clarified. The relative usefulness of providing changes to program data and the use of TCC = 'T' indicates that these types of changes are good candidates for elimination. The relationships between the TCCs provided in the IMM Manual and the change codes specified in MIL-STD-1552 to be used as part of the PLISN need to be reviewed to determine the necessity for two sets of change codes to convey the same basic information. Also, the necessity of SSR change transactions must be considered in relation to IMM actions based on these changes.

The provision for providing advice to SICC's only for SSR change transactions containing TCC = 'S' does not appear to be sufficient. SICC's should be provided advice on all SSR change transactions submitted so that corrective action may be taken when SSR change transactions are not matched to the automated SSR Suspense File or when the SSRs contain invalid data. SICC's should also be provided accept advice by IMM's when SSR change transactions are valid. This is especially important where retail/replenishment quantity increases are concerned.

I. JOINT PROVISIONING

1. Background

The IMM Manual provides for communication of SSR item data for claimant Service users by the Lead Services when two or more Services are jointly provisioning an end item. Claimant Services users are communicated using an Additional User Transaction under the SSR procedures. The additional user transaction basically consists of LISSR control data elements and the claimant Service provisioning activity code. Under this procedure, the Lead Service would add claimant Service requirements to its own requirements before submitting SSR transactions to CIMMs.

Under joint provisioning, maintenance significant items are identified at a joint SM&R coding conference. This joint conference is attended by the end item contractor and representatives of each Service involved in the joint provisioning effort. Each Service determines its own requirements for each maintenance significant item subsequent to the conference. Each Service submits a list of items and respective quantities to be procured on the end item contract to the Lead Service generally accompanied by a MIPR. The Lead Service then submits these requirements along with its own to the contractor. The same kind of process is currently available for consumable items managed or IMC coded for management by a CIMM. The claimant Service determines its requirements for each CIMM item and forwards them to the Lead Service. The Lead Service then includes the other Service requirements with its own in the LISSR transactions for these items and also generates the appropriate Additional User transactions.

2. Current Processing Considerations

A review of current generation and processing of SSR transactions under joint provisioning reveals that only the Electronics Provisioning Subsystem in the Navy is capable of automatically generating Additional User transactions and that only the Air Force SSR Application is able to include subordinate Service requirements in the automated requirements computation process.

The SSR transactions generated on an automated basis from the Provisioning Subsystems of the Services do not include requirements for other Services. These requirements must be manually added to Lead Service requirements and keypunched in new SSR transactions prior to submittal to CIMMs. Additional User transactions for these items must also be manually coded and keypunched. SSR transactions for items required by another Service, but not required by the Lead Service must also be manually coded and keypunched. If these transactions are to be validated and posted to SSR Suspense Files, they must then be input as manually generated SSR transactions to the Lead Service SSR Application. Because of the additional manual processing required and the resulting potential for introduction of validation errors, generally each of the Services included under the joint provisioning contract generates and submits its own SSR transactions.

The results from the DODSSR Data Collection are consistent with this single Service SSR submittal under joint provisioning contract concept. The finding that only 0.2 percent of the LISSR transactions within the DODSSR data base were accompanied by an Additional User Transaction validates that

the single Service submitter concept is being used. In addition, a review of the commonality listing revealed the same items appearing on multiple LISSR transactions from activities of different Services containing relatively consistent control data elements. These transactions were submitted with different DORs, but the differences in DOR were small enough to be attributable to Service/ Activity processing differences.

3. Analysis of SSR Processing Under Joint Provisioning

The generation and submittal of SSR transactions by each Service under a joint provisioning contract suggests that the current SSR procedures are not being used when applied to joint provisioning. Since the Services have not designed their automated systems to process joint provisioning contracts a significant amount of manual processing is required subsequent to generation of SSR transactions by the Lead Service. This manual processing not only adds to the validation error rate, but may significantly increase processing time at the Lead Service provisioning activity prior to submittal of the SSR transactions. In addition, the current SSR procedures in the IMM Manual do not provide for forwarding SSR advice or NSN notifications to claimant Services by either the CIMM or the Lead Service. These factors point to the obvious advantages to be gained by each service submitting its own SSR transactions.

However, there is a distinct disadvantage to the SICC's in conducting SSR generation and processing in this manner. Under the current system each LISSR transaction stands on its own merit in the method and level of support determinations made by CIMMs. This practice has been repeatedly criticized by the Services as causing too many items to be supported as centrally procured nonstocked instead of centrally procured-centrally stocked. If SSR requirements for all Services involved under joint provisioning were submitted as a single requirement by the Lead Service, it is reasonable to expect some of the items that would be supported as centrally procured-nonstocked to move to the stocked category.

From this discussion it is apparent that the IMM Manual should be revised to provide for one of the following two processing concepts:

(1) The Service should provide an automated method of adding subordinate Service Requirements to Lead Service requirements in their automated SSR Applications; the Additional User transaction in the current IMM Manual should be eliminated and the claimant Service provisioning activity should be provided in the LISSR transaction; and the IMM Manual should provide a means of providing SSR advice/NSN notification to the claimant

Service provisioning activity. This alternative requires the claimant Service to maintain a record of SSR items required on its SSR Suspense File for matching up of SSR advice/NSN notification and support/nonsupport notification to provisioning elements.

(2) The IMM Manual should be revised to provide that all SSR transactions should be generated and submitted on a single Service basis and the Additional User Transactions should be eliminated. This alternative requires that a provision be added to the IMM Manual to sum the SSR requirements for the same item submitted in separate LISSR transactions prior to the Method/Level of Support determination. This summary of requirements would pertain only when multiple SSR transactions were received by a CIMM for the same item from different SICCs in the same processing cycle.

J. NIMSR PROCESSING

1. Processing Considerations

The generation and processing of NIMSR transactions is currently done under the auspices of the joint regulation covering the elimination of duplication in the management and logistics support of multi-used nonconsumable items (Appendix D, Reference 21). Under the procedures contained in this joint regulation, the NIMSR process is limited to a manual process by virtue of the NIMSR form specified. A facsimile of the NIMSR form as contained in the joint regulation is shown in Figure V-9. The manual processing performed by each Service was described in Volume II. This processing is summarized below.

Outgoing NIMSR processing in each of the Services generally begins about the same time the SICC SSR Processing Phase begins for consumable items. The NIMSR forms are initiated by cataloging elements in all Services except the Air Force. The catalogers generally complete blocks 1, 3, 4, 5, and 10 of each NIMSR form. These forms are then forwarded to item management or provisioning elements for completion of the submitter portion of each form. The completed forms are returned to cataloging elements for submission to the PICA. These cataloging elements are responsible for maintaining a manual suspense file and following up on uncompleted NIMSR forms. This cataloging element is the same element responsible for submitting, maintaining suspense files and following up on SSR transactions. The Air Force is an exception to this general sequence of events. As explained in Volume II, NIMSRs are generated and processed totally by item management elements in the Air Force.

This difference in processing on an organizational basis has a definite effect on timeliness of processing. The cataloging element in the Army, Navy, and Marine Corps enters the

SAMPLE NIMSR

NONCONSUMABLE ITEM MATERIEL SUPPORT REQUEST			
1. SUBMITTER		2. PREPARING OFFICE	
3. PICA		4. DATE OF REQUEST	
5a. NSN	5b. AF/MMAC	6. INITIAL QUANTITY	7. DATE REQUIRED
	5c. NAVY COG CODE		
8. LEVEL OF SUPPORT	9. MANAGEMENT LEVEL CODE		10. MOE RULE
11. SHIP TO		12. APPLICATION	
13. SYSTEMS SUPPORTED	14. INSTALLED QUANTITY		15. TYPE PROGRAM
16. OPERATIONAL USAGE	17. 12 MONTH DEMANDS		18. UNSERVICEABLE RETURNS
19. PICA RESPONDING OFFICE		20. LEVEL OF SUPPORT	21. METHOD OF SUPPORT
22. DATE FUNDS REQUIRED	23. ASSET AVAILABILITY DATE		24. UNIT COST
25. TOTAL DOLLAR VALUE	26. PROCUREMENT LEAD TIME	27. REPLENISHMENT RQMT DUE DATE(S)	
28. UNSERVICEABLE RECEIVING ACTIVITY			
29. REMARKS			

Figure V-9

Date of Request (block 4) as the process date when the NIMSR is initiated which is prior to completion by item management or provisioning elements. Since a single functional element in the Air Force initiates, completes and mails each NIMSR more timely processing would be expected to occur. The result of the Data Collection discussed in Volume III show this to be true with SICA Internal Wait Times of 10 days to two weeks larger on the average in the Army and Navy than in the Air Force.

Suspenses on outgoing NIMSRs are generally begun on the date mailed, not the DOR, and the initial suspense prior to followup is usually 30 days. The SICA may then followup either by telephone or letter, although no specific standard or followup procedures are provided by the joint regulation covering NIMSR usage. The data collection revealed average transmission times of 10 days to three weeks and PICA processing times averaging over 36 days. These times make the 30 day standard used on an activity basis seem rather unrealistic.

Incoming NIMSR processing is predominantly an item management function and in the Air Force and Marine Corps incoming NIMSRs are directed to item management elements. The Army and Navy cataloging elements perform screening for PICA validation prior to forwarding NIMSR to item management elements. Incoming NIMSRs are completed by item management elements totally and returned to the SICA via mail. The timing of NIMSR related cataloging actions varies from Service to Service in terms of whether these actions are completed before or after the completed NIMSR is returned to the SICA. In the Air Force the item management element completes cataloging actions for NIMSRs, while cataloging elements perform these actions in the other Services. No locally established timeframes for processing incoming NIMSRs were found to exist.

2. Feasibility of Automating NIMSR Processing

The current manner of processing NIMSRs is similar to the method of processing Nonprovisioning SSRs prior to implementation of the IMM Manual. At that time nonprovisioning SSRs were identified using a form similar to the NIMSR form in use today. Nonprovisioning SSR generation and processing was a totally manual process at that time; however, the implementation of the IMM Manual combined procedures for provisioning and nonprovisioning SSRs, and as a result, nonprovisioning SSRs may now be processed mechanically. The potential for automating NIMSR generation and processing depends on identification of items as NIMSR candidates during the Provisioning Processing Phase or SICC SSR Processing Phase, and providing automated formats to accommodate each data element on the NIMSR form.

One Service, the Army, examines SSR candidates in its SSR Application for the presence of a non-blank NIMSC. This test weeds out SSR candidates that are nonconsumable items and require NIMSR preparation and submittal. If an automated format existed, it appears that NIMSRs could be automatically generated as a direct follow-on to this identification similar to the way SSRs are generated by that Application.

It is significant to note that the major control data elements and key data elements used in SSR processing are also required in NIMSR processing. These data elements include Activity Code To (PICA), Activity Code From (Submitter), Date of Request, NSN, Retail Quantity (Initial Quantity), and Replenishment Quantity (12-Month Demand). In addition, other data elements used in SSR processing are present on each NIMSR form; e.g., Date Repair Parts Required (Date Required) and Support Date (Asset Availability Date). This illustrates that it would be possible to automate NIMSR processing under the SSR Procedures using the same general controls and adjusting the request and advice formats to accommodate data elements required for NIMSR processing. The automation of NIMSR generation would greatly reduce the internal processing time at the SICA and would allow NIMSRs to be sent, received and replied to using AUTODIN which would, in effect, eliminate virtually all of the current transmission times.

Although the potential for automating NIMSRs under the SSR Procedures exists and the potential reduction in processing times makes this mechanization desirable, the volume of transactions must also be considered. The data collection resulted in about 3,000 NIMSRs over an 8-month period. This is compared to over 38,000 nonprovisioning SSRs collected during the same 8-month period. The number of NIMSRs currently being processed does not appear to warrant the expense of developing automated processes and formats. However, when the volume of NIMSRs being processed between activities reaches a significant level, it appears to be feasible to automate NIMSR processing under the SSR Procedures.

K. SUMMARY ANALYSIS AND CONCLUSIONS

1. General. The previous sections of this Chapter have compared on a total systems basis the sequence and actions relating each major event to the processing phases within the Conceptual Systems Model. These sections show the large variations among SICC/IMMs in the sequence of processing actions, types and numbers of files maintained, techniques of file posting and updating, establishment of internal and external controls, and types of inputs accepted and outputs produced. This section presents the study team findings related to the systems approach which are required to meet the objectives of the study assignment. These findings are presented as they relate to current systems changes and as they relate to a system redesign effort.

2. System Considerations. The study team found three systems characteristics which require revision. These characteristics include:

- * Processing Cycles
- * Item Processing vs Package Processing
- * Job Stream Considerations

The first and second characteristics apply to both manual and automated processing while the third applies only to automated processing.

a. Processing Cycles. The processing cycle refers to how often certain actions are accomplished. This terminology is commonly used in automated data processing, but may be applied equally as well to manual actions. SSR transactions whether they be outgoing or incoming are processed on a cyclic basis. During the operational implementation review the study team found that on a manual basis this processing cycle may be from 10 days to two weeks for incoming LISSR transactions, but is usually daily for outgoing SSR transactions. Automated processing cycles vary among the Components and even among activities within the same Component. Some automated systems are designed with multiple processing cycles; e.g. the Air Force SSR Application contains a daily cycle and a monthly cycle. All Component automated SSR Applications were designed to contain a daily processing cycle although most of these applications also contain other processing cycles. The system design activities of the Components have generally recommended that the daily processing cycle be executed on a daily basis; however, during the operational implementation review it was noted that each operational activity is allowed to determine how often automated applications are scheduled. The activities reviewed generally scheduled or intended to schedule the automated daily SSR processing two to three times weekly. These varying processing cycles delay processing of SSR transactions on both a manual and automated basis. This delay should be eliminated by processing all types of SSR transactions including locally generated inquiries on a daily basis. Since most of the processing accomplished in other processing cycles is related to purging SSR History Files and producing functional listings or operational reports, these processing cycles may not require a change.

b. Item Processing versus Package Processing. The study team found that the automated systems design of each Component is geared to processing on a item basis and only processes items on a package basis when purging items from automated SSR Suspense/History Files and to meet the IMM Manual requirement that LISSR transactions be submitted in packages accompanied by a PDSSR transaction. Manual processing however, is

geared to processing items in groups or packages. The package processing concept tends to delay processing on a manual and automated basis when all items within a package must successfully complete one action or major event (e.g., validation) before any of the items may continue to the subsequent processing action or major event. This package processing concept should be eliminated to improve the processing flow for each item. The elimination of this concept is explored further below in the Input section.

c. Job Stream Considerations. Automated processing cycles may consist of a single program module or of several program modules. It is a common practice to execute all program modules within a processing cycle together in job stream to provide control over the sequence of processing actions. The study team found that most systems were designed and executed using this job stream concept; however, at least one Component was scheduling and executing its SSR Application on a program module by program module basis even when these program modules are designed to perform subsequent actions on the same transactions (e.g., outgoing LISSR transactions). To provide proper sequencing and control of processing actions program modules within the same processing cycle should be chained together into job streams. There also seems to be a potential for integrating or chaining the Provisioning, Requirements Computation and SSR Applications together into single job streams in the Army and Navy, where these other actions have been successfully automated.

3. Inputs

The most basic input to the system is the originating document which leads to the generation of SSR transactions. This originating document is the Provisioning Technical Documentation submitted by the end item contractor for provisioning SSR items and is most often item recommendation documentation from field activities for nonprovisioning SSR items. These originating documents contain the basic information necessary to generate SSR transactions regardless of whether this generation is performed on a manual or automated basis.

Within the systems designed to generate and process Supply Support Requests, the SSR transactions and related technical data become the inputs. In this section, PDSSR transactions, LISSR transactions and catalog transactions will be considered as inputs. Other types of SSR transactions are considered as output or controls in subsequent sections. Within the current systems, these inputs cannot be easily changed or reformatted; however, under the system redesign, simplifications to these transactions may be accomplished.

a. PDSSR Transactions. This transaction serves as a header card for each group of items submitted to an IMM for support. This transaction serves to continue the package processing concept from the SICC to the IMM. It is this package processing concept that was found to be a major source of rejected SSR transactions in the data analysis, Volume III, and the major source of errors in the Validation Analysis Chapter of Volume III. The study team also found that other than the basic control data present in all SSR transactions, only the Date Repair Parts Required, Percent End Items East and End Item Application are used regularly by IMMs. The other data elements are validated, however, and serve only to cause a needless rejection of SSR items when invalid. The system redesign should eliminate the PDSSR transaction totally by placing the useful data elements in their current form or a modified form (e.g., altering the End Item Identification to a Weapon System/End Item Designator Code) in the line item formats. This would eliminate the problems associated with processing packages of SSR transactions while retaining the useful program data.

b. LISSR Transactions. These transactions contain basic item data required to process an item. There are currently both CIMM and WIMM formats for active NSN items, inactive NSN items, PSCN items and Part Number items. Each of these format types are discussed below after discussion of the CIMM versus WIMM formats.

(1) CIMM versus WIMM Formats. There are four data elements required in WIMM LISSR transactions which are not required in CIMM LISSR transactions. These four data elements are:

- * MOE Rule
- * Materiel Management Aggregation Code
- * Item Identification Data Receiver
- * Item Identifier Data Collaborator

Of these data elements only the MOE Rule was found to be used on an interservice basis. The Materiel Management Aggregation Code is an Air Force unique code used only by this Service. The II Data Receiver and II Data Collaborator are entered only by the Army and Navy and are for intraservice use. The MOE Rule is generally validated against a valid MOE Rule Table and is used as a basis for rejection of the SSR transaction when invalid or for generation of catalog actions. The same type of catalog actions currently are performed by CIMM by extracting the required MOE Rule from a table similar to that used by WIMMs for validation. Since these four data elements do not have universal applicability or may be simply determined from an existing source by the IMM, these data elements should be eliminated from

the LISSR transaction formats under the system redesign thereby eliminating the need for distinguishing CIMM transactions from WIMM transactions. This means that the W-series Document Identifier Codes may also be eliminated.

(2) Active NSN Items

Within the active NSN item format as well as the other item formats there are several data elements used for sequencing and control. These data elements include:

- * Document Identifier Code (DIC)
- * Activity Code To (ACT)
- * Type Change Code (TCC)
- * Item Serial Number (ISN)
- * Date of Request (DOR)
- * Provisioning Control Code (PCC)
- * Activity Code From (ACF)

These data elements are located in noncontiguous positions in the current format and are not generally in the sequence used for control or sorting actions. This has caused several Components in their automated SSR Applications to establish a sort key based on these control elements and attach this sort key to the beginning or end of each transaction. This situation has caused separate program modules to be developed to establish and append this sort key to each transaction. The study team found that not all of these data elements were used for control by all Components and that they are used in varying sequences. The data elements to be used as controls need to be clearly defined and should be located in contiguous positions in a logical sequence so that all SICC and IMM can control and sequence transactions the same. This is required to produce consistent control of SSR transactions among the Components and to eliminate the duplicate reject problems encountered when SICC and IMM are sequencing and controlling processing using different data elements in varying order. This problem was documented in the Qualitative Evaluation in Volume III and was also discussed as a validation problem. There is another duplicate transaction problem resulting from these control elements.

This second problem stems from the assignment of the PCC and ISN within the same SICC. Several apparent duplicate transactions were found to exist within the DODSSR data base. These are apparent duplicates because although the transactions contained the same PCC, ISN and, in many cases DOR, and were from the same activity each transaction contained a different item identifier. This situation may be easily rectified for both provisioning and nonprovisioning SSR items. First, a PCC should be assigned to a single provisioning list at the SICC activity. This PCC should not be assigned to more than one provisioning list and should not be reassigned while an audit

trail exists in provisioning or SSR files for items assigned this PCC. In addition, the PLISN from the provisioning list should be used as the ISN. This PLISN is six positions in length as is the current ISN which makes the fields compatible. Also, the PLISN as defined in MIL-STD-1552 provides for the sixth position to be used to identify changes to the original item. Using this PLISN as the ISN would eliminate the need for a TCC in SSR transactions except for nonprovisioning SSR items. Using this PCC-PLISN assignment technique requires each SICC to establish procedures for the assignment of PCC and PLISN to nonprovisioning SSR items to ensure that PCC-PLISN (ISN) combinations are not duplicated within the same SICC activity. In addition, since the processing distinctions between provisioning and nonprovisioning SSR items are not significant as pointed out in an earlier section, nonprovisioning SSR transactions require no identifying distinction, thereby eliminating the need for the current TCC.

For active NSN items, the data elements used for processing and making the advice decision include the NSN, Retail Quantity, Replenishment Quantity, and Unit of Issue. These data elements and those used for sequence/control should remain in the NSN format.

(3) Inactive NSN items. SSR transactions for inactive NSN items contain the same control elements as active NSN items and the same discussion applies. In addition, the same data elements are generally used for processing both active and inactive NSN items. Inactive NSN SSR transactions do contain several data elements not required for active NSN items. These data elements include:

- Source Code
- Demilitarization Code
- Procurement Method Code
- Shelf Life Code
- Production Leadtime
- Unit Price

These data elements are reported to be used for reactivation of the NSN and generally fall into the Catalog Management Data Segment of DLSC files. An item becomes inactive when it is no longer used; i.e., DLSC files have no recorded users. While an item is in an inactive status, the DLSC file records are retained including the Catalog Management Data. DLA includes automatic generation of reactivation transactions when a DLSC inquiry indicates the item is in inactive status. The additional data elements listed above are usually not required or used to reactivate these items. This indicates that a distinction between inactive NSN SSR items and active NSN SSR items is not required and therefore, the data elements listed above

should be eliminated from NSN SSR item formats and a single format for all NSN SSR items should be used. The use of a single format for NSN SSR items will eliminate appearance of the Procurement Method Code as a major cause of validation rejects as discussed in the validation analysis. These validation rejects were caused by the PMC - Unit Price matchup performed by DLA in an attempt to distinguish active NSN SSR transactions from inactive NSN SSR transactions. This matchup criteria was found to be causing a significant amount of rejected SSR transactions in both the data analysis and validation analysis.

(4) PSCN Items. The same basic discussion for inactive NSN items holds true for PSCN items also. The same basic data elements are used for control and processing. The major difference between processing these types of items within DLA lies in automated reactivation of inactive NSN items versus manual activation of PSCN items. DLA plans to automate activation of PSCN items also. Based upon the low incidence of PSCN SSR transactions as shown by the DODSSR data collection and lack of reported problems with processing of PSCN items, extensive revision of this format is unnecessary, except to the extent that it should be in agreement with the formatting concept used for other types of SSR transactions.

(5) Part Number Items. Part Number SSR items require two transactions to contain all of the data elements required to process these items. This introduces an additional control element - card number - in addition to those listed under active NSN items above. The card number is used to control and sequence LISSR transactions for these items. The first card format is similar to the current format for inactive NSN SSR items. The second card format contains item identifying and technical information which would not fit into Card Format 1. The data elements which were unused for inactive NSN SSR items are used in processing part number SSR items and cannot be simply eliminated from this format. There is a single data element from the second card format which should be eliminated under the system redesign. The Technical Data Justification Code (TDJC) was found to be duplicative of the Document Availability Code (DAC) in the data analysis and the assignment of the TDJC is predicated on the assignment of the DAC as an editing feature of some Components automated validation procedures. Both codes are not required and since the DAC is already established as a standardized code in the DIDS Procedures Manual (Appendix D, Reference 25), the TDJC should be eliminated.

(6) Other Data Elements

There are three other data elements common to the current formats of SSR items which may be eliminated. These data elements include the Item Management Code, Procurement

Method Code and Interchangeability Code. The Item Management Code indicates that the SICC has coded the item for management to an IMM. The Item Management Code was not used in the procedures in effect prior to implementation of the IMM Manual. The submittal of a LISSR transaction in these procedures was assumed to indicate the same thing as the IMC in the IMM Manual procedures. This is a valid concept and should be adopted under the system redesign.

The Procurement Method Code (PMC) is currently required to be submitted for all items except active NSN items. There is an additional code required by DLSC - the Procurement Method Suffix Code - without which the Procurement Method Code is meaningless. Both these codes should be determined by the manager of the item and therefore, the PMC should be eliminated as an SSR transaction requirement. The data analysis also indicated that SICC's are apparently entering a constant in this data element field most the time.

The Interchangeability Code is to be submitted only in SSR change transactions which are replaced item/superseding item combinations. The code entered in these SSR change transactions is generally a contractor recommendation. There currently exists standard procedures within the DoD Standardization Program for review of items and determination of interchangeability. The study team feels that DoD Standardization Program procedures should be used to determine the proper code to be used and that this data element should be eliminated from the SSR transaction formats since there is no evidence it is being used even when an entry is made.

c. Catalog Transactions. There are three cataloging transaction formats in the current system. These include Item Name Transactions, Additional Reference Number Transactions, and Additional User Transactions. Each of these transactions contain the basic data elements used for sequencing and control as described under active NSN items above. Other than these basic data elements, each catalog transaction provides a specific piece of information; e.g., the Additional User Transaction provides claimant provisioning activities to IMMs so that they may be registered as users of the item.

(1) Item Name Transaction

This catalog transaction is required to be submitted with Part Number SSR transactions when technical data is not furnished with the item. This transaction contains the item name and Federal Supply Classification which along with the data from the Part Number SSR transaction provide the minimum information required for an IMM to request NSN assignment from DLSC. Two

problems related to this transaction were identified by the study team. First the data analysis showed a significant number of SSR transactions rejected for a lack of sufficient technical data. This occurs when an item name transaction is not submitted and the submitted technical data does not provide the required information. The second problem is the number of LISSR package errors encountered as described in the data analysis and the validation analysis in Volume III. Under the current system, submittal of an item name transaction with each part number SSR item would reduce the first problem to the extent that it would virtually disappear; however, this would tend to increase the number of LISSR package errors encountered as the second problem area. There is a basis for providing these item name transactions with each part number SSR item from the CIMM SSR procedures in effect prior to implementation of the IMM Manual. In addition, each of the Component automated SSR Applications already produce item name transactions with each part number LISSR generated; however, these are discarded manually for items submitted with technical data. Therefore, under the current system item name transactions should be submitted with each part number SSR item to reduce the number of rejects for lack of sufficient technical data and the line item package validation described below should be used by both SICC and IMMs to reduce the LISSR package errors.

The useful data elements in this transaction include the item name and FSC. These data elements should be included in the new format for part number transactions under the system redesign. Since part number SSR items already occupy two transaction formats and there are a number of vacant positions in these transactions, there is no problem with eliminating the item name transaction and combining the useful data into the part number LISSR formats.

(2) Additional Reference Transactions. These transactions were found to be submitted infrequently and that many of the submissions in the data collection were the result of a system error by a single Component caused by misinterpretation of the IMM Manual. The additional reference number submitted requires manual review by IMMs to determine the usefulness and applicability of this reference number prior to initiating catalog action to add the item to DLSC files. Due to the low volume of these transactions and since they are useful in SSR actions only for part number SSR items, these transactions should be eliminated from the SSR procedures and the reference number should be included in the part number LISSR format as with the item name and FSC discussed above. If space is not available in this format, the existing cataloging procedures should be used to process additional reference numbers.

(3) Additional User Transactions. This transaction provides claimant provisioning activities under joint provisioning actions for user recordation action by the IMM. This transaction was found to appear infrequently in the data analysis (Volume III). The joint provisioning action trend as discussed in an earlier section of this Chapter is toward each Component provisioning activity determining and submitting its own SSR requirements. Due to this current trend in joint provisioning processing and because the IMM Manual does not provide for furnishing advice to these subordinate provisioning activities by either the IMM or the Lead Service, the Additional User Transaction should be eliminated from the SSR procedures and each Service should submit its own SSR requirements.

d. Technical Data. The technical data submitted to IMMs consists of several types. This technical data may be a hard copy drawing or aperture card. It may also be a catalog page, a written justification for sole source procurement, or a sheet of paper providing unit of issue data when a nondefinitive unit of issue is given in the LISSR transaction. This technical data is currently annotated with appropriate control data to provide a means of matching it up with an SSR submittal. This control data generally consists of PCC, ISN, DOR, ACF. Although, this data is available to the functional elements performing provisioning processing, many times this control data is not annotated on the technical data until the SSR transactions have been generated for submittal. In addition, some activities send technical data received to the activity technical repository for review and duplication as part of File Establishment; other activities may wait until SSR candidates are identified and SSR transaction are being generated before sending the technical data to the technical repository. When technical data is not placed in the technical repository until SSR candidates are identified, SSR transactions can experience internal processing delays prior to submission while waiting for return of technical data from the technical data repository. Currently, the IMM is required to return submitted technical data when items are rejected. When the SSR advice is sent via AUTODIN to the SICC and the technical data is returned by mail, there is an unnecessary time delay at the SICC activity while waiting for the technical data to arrive. It would appear that since technical data has been placed in the technical repository prior to sending it to the IMM, it would be readily available to the SICC upon return of SSR advice. This appears to make the need for return of technical data by IMMs unnecessary.

e. System Considerations

As defined above the basic inputs to the system as a whole include the PTD submitted by the contractor from which the SSR transactions are generated and transmitted to IMMs.

These SSR transactions and the related technical data serve as inputs to the IMMs. The system characteristic which requires discussion here is the transmission and receipt of these inputs. In the current system PDSSR, LISSR and Catalog transactions are mailed with the associated technical data by SICC's to IMMs for processing. The data analysis in Volume III shows that the transmission time for mailing transactions can be over one month; which is far too long for effective system processing. This mailing of SSR transactions is based on the package concept of processing and, to a lesser extent, on the annotation of SSR control data on the technical data prior to submission. The analysis of the AUTODIN/TELEFAX Test illustrates that all types of SSR transactions could be submitted via AUTODIN effecting a great reduction in transmission time. This test also showed that the matching up of technical data with the appropriate SSR item could be accomplished with minimal problems by the IMM and that certain processing actions could be accomplished on the SSR transactions while awaiting for the technical data to arrive; e.g., validation and catalog data screening. However, since this test was designed to test AUTODIN transmittal only, there was not a direct tie-in between the automated generation of the SSR transactions and the AUTODIN submission of these transactions. The processing performed during the test generally included generation and output of the SSR transactions as EAM cards by some activities so the control data could be annotated on the technical data after which the EAM cards were taken to the AUTODIN terminal for submission while the technical data was mailed. Although using this processing technique still reduces the transmission time for SSR transactions, the internal processing time at the SICC activity remains.

The study team has concluded that the results of the AUTODIN Test clearly show that all SSR transactions should be submitted via AUTODIN and that this transmission should be a direct follow-on from the automated SSR Application. This may be accomplished directly where an automated link exists between the computer and AUTODIN terminal or indirectly by placing the SSR transactions on an intermediate disk or magnetic tape file which is then transferred to the AUTODIN terminal. This process eliminates both the internal SICC processing time and the mail transmission time. This concept also affects the submittal of technical data. For provisioning projects, the control data to be annotated on technical data is present during the provisioning processing except for the DOR. This control data - ACF, PCC, ISN - should be annotated on the technical data during the provisioning process. This would allow functional elements like the Data Management Branch at TSARCOM in the Army to mail the technical data immediately rather than filing this technical data to await generation and output of SSR transactions on EAM cards. For SSR transactions manually generated from sources other than provisioning projects, this control data can be

entered on the technical data prior to inputting the SSR transactions to the Component automated SSR application for validation, file maintenance and transmittal to the IMM. Note that under the single PCC - ISN combination for a single ACF concept described under active NSN items above, the DOR is no longer required to match up technical data with the proper LISSR transactions.

4. Files. The type, number, sequence, content, retention and inquiry capability of files in the current system were discussed earlier in this Chapter and in Volumes II and III. All of these characteristics were found to vary among Components/Activities and this variation has resulted in communication problems between activities. These communication problems have resulted in match/duplicate rejects and No Record responses to followups. It would not be effective to alter the current files under the current system to allow efficient and meaningful communication between activities; however, under a system redesign each of these file characteristics could be improved to provide the desired basis for communication.

a. Types/Number. The basic types of files found to be maintained for SSR items include active files, suspense files and history files. These are maintained at both SICC and IMM activities on both a manual and automated basis at those activities where automated SSR Applications exist. Manual files generally consist of two types; a combination active/suspense file and separate history file. There may be one or more of each of these types maintained. There is generally a single automated file which acts as an active, suspense and history file combined. There is one exception to this; DLA maintains separate automated files for active items and completed items. These various types and numbers of files were shown to be a direct outgrowth of inconsistencies within the IMM Manual in the audit trail requirements.

b. Sequence. The study team found that generally the same control elements and sort keys used for sequencing and control of processing are also used to sequence both automated and manual files. Manual files were found to use fewer data elements for sequencing and control than automated files. As discussed earlier in this Chapter and as documented in Volume II, the actual data elements used and the sequence in which they appear vary from Component to Component. This variance has caused the match/duplicate reject problem experienced in the data analysis. It was concluded in the Inputs Section above that a control number combining established control data elements positioned in a logical sequence should be made a part of each SSR transaction format under a system redesign concept. This control number should be used for sequencing and controlling the storage and maintenance of SSR transactions in both manual and automated SSR files. The use of this control number provides a basis for effective automated communication between SICC and IMM.

c. Contents. The contents of manual versus automated SSR files varies distinctly among and within activities. While manual files generally contain a record of all items submitted whether under process or completed, invalid or valid, initial submission or change, provisioning or nonprovisioning; automated files contain only a portion of these items. The automated file contents vary among the Components. One example of this variation is posting of valid versus invalid SSR transactions to automated files as described in the validation analysis in Volume III. Another example is the posting of SSR change transactions to the automated SSR files. The distinction here is that SICC's generally post these transactions, while DLA posts only superseding items. This variance in contents is again caused by a lack of direction from the IMM Manual in audit trail requirements. The appropriate audit trail for this system requires maintaining a record of all actions generated or received for each item. At a minimum this record must contain the original SSR data, the advice generated and the date of that advice, and all subsequent actions including followups, followup responses, offer replies, and all changes to the original SSR.

d. Retention/Purge. The length of time items remain in files vary; however, the basis for purging items from these files is generally the same. Manual history files are generally maintained for two years after the PCC is completed by all Components. This allows matching of SSR change transactions to the original item. The IMM Manual allows SSR changes to be submitted for 24 months following the date of request of the initial submittal. Automated files contain a record of completed items for varying lengths of time - generally 180 days to one year depending on the Component. The IMM Manual requires the IMM to maintain a record of advice for 120 days following the date of advice. This is the only reference found relating what should be maintained and how long it should be maintained in the IMM Manual. Items are generally purged from both manual and automated files on a PCC not an item basis. Based on current and future requirements, a record of completed items should be maintained for two years after completion of the last action on a PCC.

e. Inquiry Capability. To efficiently and effectively process SSR transactions, access to both active and history files is required. This is especially true where automated files exist and communication is required between those files and either an internal or external source. External sources fall under the category of SSR followup transactions which are discussed in the section on controls below. Internal sources are functional elements generating inquiries to obtain file information. Currently the automated SSR Applications generally provide for inquiries on a PCC or an item basis. These inquiries are input and processed with all other input in the normal processing cycle. The study team found that the type of inquiries available to functional

users are sufficient, but that a mass inquiry capability based on weapon system or end item would also be beneficial. There does exist a problem in obtaining inquiry results and this is related to the automated processing cycles discussed earlier. The current processing cycles allow for too much time to pass between inquiry submittal and inquiry response for efficient processing to occur. The most desirable inquiry processing would include inquiry input by the functional user to an on-line system capable of immediately processing the inquiry against the automated SSR files and returning the results. This capability does not currently exist at any SICCs or IMMs to the knowledge of the study team and may not be feasible at some activities due to the low volume of SSR transactions processed. The minimum acceptable inquiry processing cycle is 24 hours or on a daily basis. For most Components this requires only a change in the execution of the daily processing cycle from two to three times weekly to daily as recommended by the system design activities of most Components.

f. Summary. The discussion of existing files is centered around the types, number, sequence, contents, retention, and inquiry capability as characteristics. The changes required are too extensive to be easily accomplished under the current system. A system redesign should provide files having the following characteristics.

(1) A single automated file should be maintained as a combination active/suspense/history file. Manual files should be eliminated or exist on an active item basis only.

(2) All SSR files maintained should be sequenced on the SSR document control number established as part of the new formats.

(3) An automated record of all actions on an item basis should be maintained. Active manual files should contain only the information required to process the current action.

(4) The automated file should maintain a record of items on a PCC/ACF basis for two years following completion of the last action within that PCC/ACF combination. Active manual files should be discarded upon completion of the current action.

(5) Inquiries should be available to the automated SSR file on an item, PCC or weapon system/end item basis and should be processed on a daily basis so that inquiry results are available to the functional user within 24 hours of submittal.

5. Processing

a. General

This section is divided into three subsections for discussion. These subsections are keyed to the Conceptual Systems Model and include:

- * SICC SSR GENERATION PROCESSING
- * IMM SSR PROCESSING
- * SICC SSR ADVICE PROCESSING

The discussion within each subsection is based on the major events where system problems were found to exist. There are two major events which were reviewed by the study team in terms of how they interface with SSR processing only. These two major events, Method/Level of Support and Requirements Determination, were excluded from the scope of the DODSSR Study and are therefore not discussed in this section; however, they are addressed in the Policy Review Section of Part 2 of this Chapter.

There are three major problem areas around which the overall discussion in this section is centered. These major problem areas include the number and kinds of reject advice, the varying interpretation of the current ATCs by SICC and IMM, and the number of current ATCs provided in the IMM Manual. In the data analysis, the ATCs currently available were categorized by the study team. The reject category included several subcategories and each major category or subcategory contained several ATCs. The study team found that although the IMM Manual contains no categorization of these ATCs, the Components had at a minimum categorized these ATCs into three categories - Accept, Offer and Reject. The particular ATCs within these categories and the resulting actions were not consistent among activities. An example of this inconsistency is illustrated by the categorization of ATC 'YB.' This ATC is given for an item which is to be purchased locally by using activities. The Services generally include this ATC in the accept category, while DLA considers it a reject. The definition of this ATC indicates proper cataloging action should be initiated to add the SICC activity as a user of the item; however, the activity - SICC or IMM - to take this action is not defined. The definition of many ATCs in the IMM Manual caused this interpretation problem. The number of ATCs provided in the IMM Manual also caused problems on both a functional and an automated processing basis. The study team found that from the functional user standpoint there were too many ATCs to remember and that many of the ATCs had overlapping definitions - particularly those within the same reject subcategories developed by the study team. The findings from the automated systems standpoint was exactly opposite in that there were not

enough specific codes to identify exact validation error conditions in SSR transactions. This led to the development of Component unique reject codes as discussed in the validation analysis. These problems led the study team to conclude that the current ATC concept and method of providing advice requires extensive revision. The particular revisions required are discussed in the subsection below.

(1) SICC SSR Generation Processing

The sources of SSR transactions include the PTD from provisioning projects, item recommendations from field activities, and design change notices among others. Each of these sources contains the data which serves as the basis for each SSR transaction and although this data is in many cases a recommendation from the originator, e.g., contractor recommended data in the PTD; it is usually transferred unchanged to the SSR transaction. A complete and thorough review of origination documentation to ensure the data furnished is valid and in the proper format for each data element, should be done so that valid data is entered in SSR transactions generated from these originating documents. For Components which have automated provisioning systems much of this review and validation for provisioning projects may be accomplished on an automated basis. Other source documents may require a totally manual review.

The processing of technical data by SICC activities has an impact on SSR processing as a whole. The study team found that technical data processing varies among SICC activities. The technical data which is to be lodged in the SICC technical data repository is the primary consideration here. At some SICC activities this technical data is forwarded to the technical data repository for review, duplication, and storage immediately upon receipt, while other SICC activities may not forward this technical data to the repository until the SSR transactions are prepared for forwarding to the IMMs. This concept of duplication and storage of technical data during SSR processing and the requirement for return of technical data by IMMs to SICC as currently provided for in the IMM Manual tend to create delays in both SSR submission and receipt of final advice. This requirement to return technical data serves to delay final advice on some part number SSR items in the current system. An example to illustrate this delay is the case where part number SSR transactions are submitted to an IMM with a hard copy drawing or aperture card serving as technical data. If this part number SSR item is found to contain invalid data, it is rejected by the IMM and a reject advice transaction is generated and transmitted to the SICC via AUTODIN. The technical data must be mailed back to the SICC for rejected SSR items as required by the IMM Manual. When this technical data is required to determine the correct data to be entered on the

SSR resubmittal and the SICC has not retained a copy of this technical data either in the functional area, the SICC usually waits until he receives the technical data returned by the IMM before he makes the required correction even though a copy could be obtained from the technical data library. This technical data must then be again submitted to the IMM with the SSR resubmittal. With the AUTODIN submittal of all SSR transactions as recommended in the discussion of Inputs above, the mailing again delays processing of the SSR resubmittal - this time the IMM is delayed until the technical data is received. The processing flow could be greatly improved if both SICC's and IMMs would forward technical data to the activity technical data repository for review, duplication and storage when it is initially received and that copies be requested from the activity technical repository when required. This would eliminate the requirement for IMMs to return technical data and the requirement for SICC to submit technical data with SSR resubmittals.

(a) Catalog Data Screening. Each of the SICC's reviewed perform catalog data screening on all SSR items. This screening may be performed against local files only, or against both local files and DLSC files, or against DLSC files only. The Navy and Air Force provide for some automated processing based on the results of this screening, and the Army has integrated catalog data screening in its automated provisioning system. The concepts of integrating catalog data screening into automated provisioning system and/or automated SSR applications (e.g., Air Force) and automating the processing of screening replies are good. The data analysis, however, indicates too many rejects occur from submission of SSR transactions to the wrong activity or submitting SSR transactions for nonstandard items or for part number items when standard items or stock numbers exist. The SICC's should perform quality/timely catalog data screening to reduce the occurrence of these erroneous SSR submissions. A training course should be provided by DLSC for those activities not familiar with the full range of data available from screening processes and the interpretation of that data.

(2) Validation. The validation conventions and criteria used by the SICC's were discussed in the validation analysis. The conventions and criteria were generally found to differ between the Services as SICC's and among the Components as IMMs. These differences were found to be causing invalid data rejects on an IMM basis for transactions which were validated and found to be valid by SICC's. This requires the same criteria and conventions to be used by all SICC's and IMMs. These conventions and criteria are discussed further under IMM SSR processing below. The Navy and Air Force were found to

have designed multiple validation concepts into their respective automated SSR applications. This concept of multiple validation of outgoing SSR transactions by SICC's is a good one and should be considered for continuance or adoption in any system redesign projects of Component SSR applications. The study team encountered the situation where some SSR transactions, like manually generated nonprovisioning SSR transactions and SSR change transactions resulting from design change notices, were not being entered into Component SSR applications for validation prior to submittal. The study team feels that all SSR transactions should be extensively validated prior to submittal and by bypassing this validation - particularly where automated systems exist to perform this event, SICC's are increasing the odds of these transactions being rejected for invalid data and thus extending the time before final advice is received.

(c) File Maintenance. File maintenance processing within SSR generation activities consists primarily of posting SSR transactions to automated and/or automated files. The study team has concluded in the section discussing files above that all types of SSR transactions should be maintained in a single file, preferably automated, to provide needed control over processing of these items. The skeleton SSR transactions provided for invalid SSR transactions in the Navy automated system design is seen to be a concept worthy of consideration by other Components.

(2) IMM SSR Processing. The discussion of IMM SSR processing centers around the five major events; validation, catalog data screening, advice decision, file maintenance, and catalog actions. Each major event comprises a subsection below.

(a) Validation. The discussion of validation is based on the data analysis, validation analysis, and the comparative system analysis. The data analysis and validation analysis show the major sources of errors, the reject codes applied to these errors, how often certain data elements are used and the relative use and usefulness of these data elements, and the extensive variation in validation conventions and criteria among the Components. The comparative analysis shows the particular SSR data elements used by IMMs to process SSR transactions and produce advice to the SICC's. These analyses are the basis for data element elimination and subsequent reformatting and reorienting of SSR transactions described in the Inputs Section above. The elimination of data elements and reorientating/reformatting concepts described there requires the development of validation conventions and criteria to be applied to these transactions.

1 Validation Conventions and Criteria.

Under the systems redesign concept, the reformatted SSR transactions provide the basis for development of these validation conventions and criteria. These new validation conventions and criteria must be applied consistently among the Components to avoid the same types of errors occurring in the current system from appearing in the system redesign. There are certain improvements that may be made in the current system to reduce the prominent errors appearing in the current system. These improvements are based on the errors occurring and the data elements used. The predominant errors occurring include package errors, PMC errors due to the active vs inactive NSN item formats, and errors due to invalid data in data elements in the other mandatory category.

a Package Validation. Since the PDSSR transactions and catalog transactions are eliminated in the system redesign, the package validations involving these transactions should generally be eliminated from the current system. There is a single package validation which should be performed. Each part number LISSR card number 1 transaction must be accompanied by a part number LISSR card number 2 transaction and an item name transaction.

b Match/Duplicate Validation. There should be a match of incoming LISSR transactions against one another and against previous submissions to insure that only one valid LISSR transaction is received for the same ACF, PCC, and ISN combination. This eliminates the duplicate submission problem experienced.

c PDSSR Data Element Validation. There are only two useful data elements in this transaction format. These include the DRPR and Percent End Items East. The DRPR should be validated and used if valid. If invalid, the IMM should determine the support date and furnish it to the SICC on items accepted for support. The Percent End Items East should be validated and edited to a value determined by the IMM when invalid.

d NSN SSR Data Element Validation. Based on the elimination of the distinction between active and inactive NSN items, the following data elements should be validated for rejection of NSN SSR transactions:

Document Identifier Code
Activity Code To
Provisioning Control Code
Item Serial Number
Date of Request

Activity Code From
NSN
Replenishment Quantity
Retail Quantity
Unit of Issue

e PSCN SSR Data Element Validation.
Due to the low volume of these type SSR transactions, no changes in data element validation should be made under the current system.

f Part Number SSR Data Element Validation. Based on the data elements used by IMMs to process part number items and current validation criteria the following data elements should be validated for rejection of this type SSR transaction:

Document Identifier Code
Activity Code To
Provisioning Control Code
Item Serial Number
Date of Request
Activity Code From
Card Number
Retail Quantity
Replenishment Quantity
Unit of Issue
Production Leadtime
Unit Price
FSCM/Reference Number
Reference Number Format Code
Reference Number Category Code
Reference Number Variation Code
Document Availability Code

Since the current system conclusions from the Inputs Section above include submission of an Item Name transaction with each part number SSR item submitted, the item name and FSC as well as the control data elements on this type transaction should be validated.

g Data elements to be eliminated in
the system redesign should bypass validation in the current system. These data elements include:

End Item Quantity
Procurement Method Code
Quantity Per End Item
Type Change Code
Item Management Code

Date NSNs are Required
End Item NSN, Name, etc.
Contract Control Number
End Item Delivery Code
FSCM Prime
Weapon System Code
Item Identification Data Receiver
Item Identification Data Collaborator
Materiel Management Aggregation Code
Number of SSRs Enclosed
MOE Rule
Technical Data Justification Code
Interchangeability Code

h Any remaining data elements should be bypassed or validated and edited when invalid based on their relative usefulness. These data elements may be considered for elimination under the systems redesign based on their relative usefulness and the availability of space in the new transaction formats.

2 Communication of Invalid Data. Invalid data identified through validation is communicated externally using reject advice transactions in the current system. These transactions should continue to be used in the current system. Under the concept of system redesign and communication of advice in the system redesign. All rejects should be grouped into a single category and within this overall reject category separate subcategories identified through transaction codes should exist for invalid data elements and for validation errors falling into the match/duplicate subcategory. The transaction code would identify the reject as an invalid data reject or the particular invalid match/duplicate condition found. The data elements found to be in error should be clearly identified using a data element number/data reference number technique. The validation analysis indicates that there is some advantage to performing multiple validation of SSR transactions and since there is space available in the invalid data advice transaction, the system redesign should provide for multiple validation of SSR transactions and identification of up to five data elements in error in the reject transaction. The DIC of the SSR transaction in error should also appear in the invalid data reject advice transaction so that all types of SSR transaction errors may be communicated to the submitter including LISSR transactions and advice transactions.

(b) Catalog Data Screening

The current system provides for rejecting items when catalog data screening indicates certain conditions exist. These conditions include (1) catalog data screening

matches the submitted part number to an existing NSN/PSCN, (2) catalog data screening indicates a standard NSN/PSCN exists for the item submitted or the submitted item has been cancelled and replaced by another item, and (3) catalog data screening indicates the item is managed by an IMM other than the IMM to which the item was submitted for support. There are a number of ATCs in the current system pertaining to each of these conditions and DLA has automated the processing of DLSC screening to automatically generate reject advice transactions containing an appropriate ATC for each of these conditions. As described above in SICC SSR generation processing, many of these errors can be avoided by the SICC's performing timely/quality catalog data screening. The remainder of these rejects in the first and second conditions may also be eliminated in both the current system and the system redesign concept. The third error condition can be eliminated under the system redesign concept only.

Due to the rate of occurrence of these type errors as discussed in the data analysis and the resulting delay in processing experienced when these items are rejected by IMMs, and subsequently corrected and resubmitted by SICC's in the current system; the following changes to the current systems should be made. When the IMM matches a part number to an NSN in DLSC files through catalog data screening, the IMM should not reject the item but should furnish accept advice to the SICC in conjunction with the matched NSN. The ATCs indicating these error conditions should be eliminated. When a standard item or replacement item is identified, the IMM should furnish advice to the SICC indicating acceptance of support on the standard/replacement items. The ATCs in the current system should have their definitions revised to indicate this acceptance. When DLSC screening indicates the item requested has been cancelled without replacement, the IMM should accept support and take action to reinitiate the item. The ATC definition applicable to the condition should also be altered. In all of the cases described above the IMM should continue processing of the item to initiate appropriate catalog actions (e.g., add user transactions, NIIN requests, etc.). No changes to the current system should be made when catalog data screening indicates the item is managed by another IMM.

In the system redesign, when the submitted item is matched in DLSC files or the item is cancelled without replacement, these items should be included in the overall accept category in the subcategory indicating the SICC will be supported on the item requested. Those items matched to a standard item, or replacement item should also be included in the accept category, but a separate subcategory should exist for these items. The receiving IMM should alter the IMM activity in the LISSR transaction and forward the item to the managing IMM for processing for items which DLSC screening indicates another manager.

Technical data for these "passed" items should also be forwarded to the managing IMM by the receiving IMM. A new advice transaction reflecting this passing action should be established in a separate advice category. This passing action advice should contain the activity code of the IMM to which the item was forwarded and should be used to update the SICC SSR suspense file to reflect the proper IMM. The transaction date for this passing action advice transaction should be used as a basis for following up to the managing IMM. The receiving IMM should maintain a record of receipt of the LISSR transaction and of the passing action advice.

(c) Advice Decision

The discussion under this major event is centered around advice decisions generally made on a manual basis as opposed to those resulting from the automated actions associated with validation and catalog data screening discussed above. This discussion is keyed to the system redesign concept since the changes required to the current system would be too extensive. Also, the changes in this particular area do not tend to decrease the occurrence of rejected SSR transactions, but tend to make the advice given more meaningful to the SICC and provide that advice on a more timely basis.

The advice decisions reached here result from actions accomplished during item entry control actions and result in accept, offer, or reject advice. Except for the case where support is accepted on the item submitted by the SICC, the advices from item entry control procedures usually fall into different subcategories than those discussed in validation and catalog data screening above. During item entry control, the item submitted and the associated technical data is received to identify if an alternate/substitute item is already in the supply system and may be offered to the SICC. Under the current system, when an alternate/substitute item is identified, an offer advice transaction is generated and transmitted to the SICC and a DLA Form 546, Alternate/Substitute Item Referral, is prepared and mailed to the SICC. This form serves as technical data to aid the SICC in making a decision to accept or reject the offered item. The SICC's decision is forwarded on an offer reply transaction to the IMM. The data analysis shows a very high rate of acceptance when the offered item is stock numbered. These offers consist of two categories of substitute items. The categories consist of stock numbered items that are equivalent to the submitted item in terms of both performance and physical characteristics and are the same item of supply, and stock numbered or part numbered items that are better than the submitted item but a different item of supply. In the first case the reference number submitted can be added to the NSN in DLSC files as a primary reference number, while in the second case they cannot. The first of these subcategories should be considered as a subcategory

of accept. These advice transactions should indicate that the IMM accepts support on the substitute item identified and the SICC need provide a reply only if the substitute item is not acceptable. The second subcategory should be considered in the same manner as offer advice is today in that a reply indicating acceptance or rejection of the item is required. In many cases the DLA Form 546 accompanying these substitute item offers in the current system contains minimal data in addition to SSR control information and the offered item NSN or reference number. This shows a potential for eliminating the use of the form as technical data and including the data furnished in the substitute item accept or offer advice transaction. Including this data in the advice transaction would allow the advice and technical data to be forwarded over AUTODIN and the SICC to immediately begin processing to determine if the offered item is acceptable. In the current system when the offer advice transaction is transmitted via AUTODIN, the SICC generally waits until the DLA Form 546 is received (by mail) before processing is started.

When the original item submitted is not accepted for support and a substitute item is not identified, the SSR item is rejected. These rejects fall into three subcategories - technical rejects, support rejects and other. These three subcategories should be maintained as separate reject subcategories under the system redesign concept.

Technical rejects indicate that certain SSR data required to process the item is invalid or not available. An example of this situation is where the submitted FSCM or part number is improperly formatted. The Components have initiated action in the current system to allow DLA to correct FSCMs and part numbers which are improperly formatted. The study team has no data or research to support or refute this action; however, since this action has been initiated, a provision for providing this advice under the system redesign is included. This advice should be considered as a separate subcategory of accept advice and interpreted as acceptance of support by the IMM on the reformatted/corrected part number and/or FSCM. However, a provision must also be included to allow the SICC to reply to this change indicating that the action taken by the IMM is improper and providing the properly formatted FSCM/part number required by the SICC.

There is an ATC (36) in the current system indicating Other advice; i.e., no other ATC applies. In many cases these "other" rejects are accompanied by a DLA Form 546 indicating the cause of the reject advice. The data analysis indicates that this code is used for a variety of error conditions that occur in the current system. A reject subcategory indicating the SSR item is rejected for a reason not covered in the other reject subcategories is required. This reject subcategory should be constantly monitored to ensure it is not used to reject SSR items which fall under another reject subcategory.

In addition, the other reject transaction format should provide space for an alphanumeric "in the clear" message to provide the reason for the reject, thereby eliminating the need to provide the actual reason using a DLA Form 546 or other correspondence which must be transmitted by mail.

(d) File Maintenance

The type of SSR transactions to be maintained to provide an adequate audit trail is discussed in the subsection dealing with files above. This discussion centers around when file maintenance actions should occur and how they should be accomplished in automated SSR applications. Each SSR item should be established in the SSR suspense file - whether automated or manual - immediately upon receipt by the IMM. All subsequent actions should then serve to update this basic record including validation, catalog data screening and all other actions taken on an automated or manual basis by IMMs. When an advice decision is reached, the advice should be posted to the item record prior to generation of advice transactions to be transmitted to the SICC. When SSR transactions are received from SICC's which relate to a previous submission; i.e., SSR change transactions, reply transactions, followup transactions, etc.; these transactions should be matched to the SSR suspense file using the SSR document control number (under system redesign concept) and posted to the matched item record immediately upon receipt. Unmatched transactions of this type fall into the match/duplicate reject subcategory.

In the automated SSR applications designed by the Components to accommodate the current system requirements, two methods of file maintaining SSR actions are used. One method provides for inputting SSR transactions to be returned to SICC's; e.g., advice transactions; directly to the SSR application for posting to the SSR suspense file. This requires manual generation of the advice transactions in the IMM Manual format prior to introducing them to automated processing. These automated SSR applications generally produce a duplicate of the input transaction for transmittal to the SICC after the file maintenance actions are completed. In some cases, the study team found that a duplicate of the advice transaction was produced and transmitted to the SICC prior to introducing the original advice transaction to the automated system for validation and file maintenance. The second method provides for generation of skeleton file maintenance transactions when SSR items are output for manual review. This method requires only the advice decision and related data; e.g., the item identifier of a substitute item offer to be entered in the file maintenance transaction. When the file maintenance transaction is entered into the automated system for processing, the file maintenance actions are accomplished and the appropriate advice transactions are automatically

generated. This second method of using skeleton file maintenance transactions should be adopted by all Components in the automated system redesign. It provides a better control over manual actions and more timely manual processing through simplification of the manual processing required to generate advice transactions.

(e) Catalog Actions

The catalog actions which predominate in processing SSR items are IMC actions, add user actions, NIIN request actions, and to a lesser extent reactivation of inactive items and reinstatement of cancelled items. The responsibility of performing these cataloging actions rests with the managing IMM regardless of the method of management or level of support provided. The changes in the current system described above as well as the system redesign concept requires IMMs to perform catalog actions to add SICC activities as users on standard and replacement items, and to reinstate items cancelled without replacement, since these items are shifted from the reject advice category to the accept advice category.

There is a significant change required in NIIN requests generated by IMMs. This change stems from the NIIN assignment process. Currently NIIN assignment requests to DLSC contain a submitter control number assigned by and recognizable only to the IMM making the request. When the NIIN is assigned by DLSC it is broadcast to the requesting IMM and the registered users (the SICC activity) at the same time. Upon receipt of the broadcast, the IMM generates an NSN notification for transmittal to the SICC activity. The SICC must currently wait until the NSN notification is received and processed before he can match the NIIN assignment broadcast by DLSC to provisioning, SSR or other ICP files. With the adoption of the PCC/PLISN concept described in the inputs subsection above, this situation can be easily remedied. When a single PCC and PLISN within a SICC activity are used to identify a single support item, these SSR control elements can be combined to form the submitter control number in the NIIN request to DLSC. Then when the NIIN assignment is broadcast by DLSC, the submitter control number can be used to match the broadcast to the SSR suspense file by SICC activities. This would allow SICC's to identify immediately the item to which the NIIN assignment applies and thereby update provisioning and other local ICP files on a more timely basis.

(3) SICC SSR Advice Processing. The discussion of SICC SSR advice processing centers around four major events - validation, advice review, file maintenance, and notification actions. Actions relating to each of these major events are described below.

(a) Validation. The validation analysis indicates many advice, offer reply, followup and followup response transactions are submitted containing invalid or missing data. The current system provides no means of communicating these errors to the transaction submitter except for offer reply transactions. Many Components have developed internal reject codes to be able to communicate with the functional user that an invalid LIAC transaction has been received and the particular error or errors found. The functional user must then initiate manual action to determine all of the information that was supposed to be provided in the LIAC. The invalid data reject subcategory discussed in IMM SSR processing above and the type of reject advice transaction described for the system redesign would allow the same transaction to be used to reject all types of SSR transactions not just LISSR transactions as is the situation in the current system. The Component system redesign should provide for validation of all outgoing and incoming SSR transactions and provide for rejecting all SSR transactions submitted with invalid or missing data.

(b) Advice Review

Eliminating the concept of using a single DIC for all advice transactions and different ATCs to indicate type of advice and adoption of the system redesign concept which uses different DICs for each major advice category and transaction codes within DICs to identify advice subcategories will make the advice review process easier to perform. The combination of DIC and transaction code will clearly identify the type of advice and will indicate the actions required by the SICC. This will enable SICC to identify advice which requires review and generation of a resubmission, and advice for which an accept/reject decision must be made and a resulting reply transaction generated for transmission to the IMM.

In the current system when a new support date is provided to a SICC by an IMM, the SICC has the option of procuring part or all of the retail quantity to meet requirements existing before the new support date. These quantities are usually purchased by the SICC from the end item manufacturer. Currently, SICC are not required to provide the quantity purchased to the IMM. SICC should provide this intelligence to the IMMs to allow the IMMs to more accurately forecast the initial requirements. SSR change transactions should be used to communicate this information to the IMM.

(c) File Maintenance. All types of advice transactions should be matched to the SSR suspense file on the SSR control number and posted to the appropriate item record. When a match is not found the advice transaction should be

rejected as a match/duplicate reject. The Component automated system redesign should provide for generation of skeleton file maintenance transactions when a reply or resubmission is required. This skeleton file maintenance transaction would be used to update the automated SSR suspense file and generate the appropriate transactions for transmittal to the IMM.

(d) Notification. In the current system, notifications of final acceptance or rejection are performed on a manual basis. These notifications go to the provisioner or SSR candidate originator who must then take manual action to update provisioning and/or local ICP files with support data, assigned NSNs, etc. The Air Force is the only SICC which has attempted to automate communication directly between its automated provisioning system and its automated SSR application. This two-way interface was described in Volume II. In the Component system redesign, each SICC Component should develop an automated feed-back of SSR final advice to the Component automated provisioning system when one exists.

6. Outputs. The discussion of outputs is divided into three subsections to address external outputs, internal outputs, and output system considerations.

a. External Outputs. There are no changes to the external outputs in the current system. The system redesign calls for a complete reorientation of advice and reply transactions. These transactions are listed by subcategory within major category below.

* Accept Category

- Accept item requested
- Accept standard/replacement item
- Accept substitute item
- Accept FSCM/reference number change

* Offer Category

- NSN/PSCN offer
- Part number offer

* Reject Category

- Invalid data reject
- Match/duplicate reject
- Technical reject
- Support reject
- Other reject

* Passing Action Category

* Reply Category

- Substitute item reject reply
- FSCM/part number change reject reply
- Offer accept or reject

b. Internal Outputs. There are five types of internal outputs required under the system redesign concept to provide adequate communications of system actions to all levels of users.

(1) Skeleton File Maintenance Transactions should be generated by both SICC's and IMM's when manual actions are required before automated processing of SSR transactions may continue. The type of skeleton file maintenance transactions should be patterned after those used by some SICC's/IMM's in the current system and are described in the processing section above.

(2) Functional Listings similar to some of those currently produced will be necessary under the system redesign to allow efficient manual processing of part numbered SSR items, advice transactions, etc. Some of these listings should be eliminated from the system redesign in particular those which constitute manual history files.

(3) Inquiry Replies should be extensively revised to provide a total audit trail of actions taken on an item basis. This allows the functional user to adequately determine the reason behind advice decisions and to provide more complete responses to questions raised by SICC's, management personnel or systems designer.

(4) Operational Reports. The few operational reports currently produced by automated systems were found to be informative in nature rather than identifying specific problems or requiring corrective action. Operational reports keyed to potential problem areas need to be included in the system redesign. Some examples of these problem oriented operational reports include:

* Counts of the number of items receiving multiple rejects.

* Counts of the number of items requiring generation or processing of passing actions.

* Counts of the number of items for which multiple followups are sent or received.

* Counts of invalid data rejects including the number of invalid data elements per item.

* Counts of external transactions received/ internal transaction generated which did not match on SSR control number to the SSR suspense file.

(5) Management Reports are currently not generated by Components. These type of reports showing cyclic results over a long period of time should be developed in the system redesign. These types of reports should enable managers to pinpoint problem areas such as processing bottlenecks or system deficiencies/inaccuracies.

c. Output System Considerations. Output system considerations are basically identical to those discussed for inputs above. It is appropriate to repeat here that the automated systems should be executed on a daily basis and that communications between SICC and IMM should be accomplished using AUTODIN to the greatest extent possible. A direct tie-in between SICC/IMM computers and AUTODIN terminals is again the preferred transmission mode, when possible. Where this direct tie-in does not exist an automated interface using disk or magnetic tape should be used.

7. Controls. This section is divided into two subsections to discuss improvements to controls in the current system and those required in the system redesign.

a. Current System Controls

There are two actions which require revision under the current system to make it operate more realistically. First, the current practice of generating followup transactions by SICC based on the Date of Request of the LISSR transaction must be changed. The operational review and the data analysis show that this practice is causing followup transactions to be received by IMMs before the allowed 25 days have elapsed. This problem is caused by assignment of the DOR by the automated SSR application based on the process date. There is a certain amount of internal processing which is then accomplished prior to mailing the LISSR transactions to the IMM. When the DOR is assigned as the process date, this SICC internal processing time is charged against the 25 days IMM processing time in terms of followup transaction generation. The SICC should predicate generation of followup transactions based on the date the LISSR transactions are actually forwarded to the IMM for processing.

When IMMs receive followup transactions which cannot be matched to a LISSR transaction in the IMM files, a followup response transaction is generated containing an advice indicating "no record" and forwarded to the SICC. When this followup response is received by the SICC, a resubmission of the original

LISSR transaction is generated and resubmitted to the IMM. This generation may be done on an automated or manual basis, but is generally done immediately upon receipt of the "no record" advice. The data analysis shows that this "no record" advice is given many times because the original LISSR transaction had not yet been received by the IMM. This occurs when the followup transaction is transmitted via AUTODIN, while the LISSR transactions are mailed to IMMs. This situation is also caused by the relationship between the DOR and date of submittal of the LISSR transactions described above. To reduce the number of the needless resubmittals of LISSR transactions and the resulting additional processing required by both SICCs and IMMs, SICCs should wait at least 15 days before generating a LISSR resubmission when "no record" advice is received on followup response transactions.

b. System Redesign Controls. In this subsection external controls are discussed first followed by a discussion of internal controls. There is one type of control which is common to both and therefore will be discussed first. This first type serves as the primary control over SSR item processing in the system redesign and is the SSR control number. This control number was discussed in the inputs section above and should be used as the central control for sequencing, processing, storing, retrieving, and validating all SSR transactions by both SICCs and IMMs.

(1) External Controls

External controls generally consist of followup transactions and response transactions to these followup transactions. Followup transactions are generated in the current system when the SICC has not received initial advice or an NSN Notification within the time standards established by the IMM Manual. The SICC has no way of communicating to the IMM whether he is following up for initial advice or final advice (NSN Notification) in the current system. The system redesign should provide for transaction codes to allow the SICC to communicate to the IMM that the followup transaction is for initial advice or for final advice and this transaction code should be considered by IMMs in providing a response to the followup transaction. Followup response transactions in the current system are a separate type of LIAC even though the format is similar to that of the advice transaction and the response is processed by SICCs the same as an advice transaction. When the response does not contain all of the information that the corresponding advice transaction contains, the SICC cannot complete processing of the item. The results of the validation analysis seem to indicate that when a response is provided, it does not always contain the identical information as the original advice transaction, particularly for those advice transactions requiring entrance of

data other than the ATC only (e.g., NSN). In the system redesign, a separate transaction type should not exist for response transactions, but a duplicate of the original advice transaction should be generated for transmittal to the SICC as a response to the followup transaction.

There are two additional types of followup transactions required. The first is a followup for an offer reply. In the current system, when an offer reply transaction is not received after 60 days have elapsed since the date of offer advice, the IMM may reject the LISSR transaction. The study team has determined that it would be preferable to provide a means for the IMM to followup to the SICC when an offer reply is overdue. This would provide a better and more timely processing flow leading to final acceptance/rejection of the SSR item than the current system provides. An offer reply from the SICC would serve as a response to this type of followup transaction.

The second type of followup also concerns a followup by the IMM to the SICC. As described earlier, some activities have designed systems/procedures to followup either internally or externally for submission of technical data when a Date Technical Data to be Supplied is provided in the Part Number LISSR transaction. The Study Team believes that this procedure should be automated under the system redesign concept and that a followup transaction be provided for the IMM to remind the SICC that technical data should be submitted for these items. A response transaction should also be provided for the SICC to indicate that the technical data is being forwarded or that it is not available.

It is important to note that all of these followup transactions may be generated by automated SSR Systems based on automated suspenses. Most of these followups may be processed partially or totally on an automated basis also under the total concept of system redesign.

(2) Internal Controls. Internal controls consist of functional notifications to advise that immediate manual action is required. Although these functional notifications should be generated on a SICC and an IMM basis, the conditions under which these notifications should be generated differ; therefore, SICC functional notifications are discussed separately from IMM functional notifications. The specific notifications discussed here are meant to be examples of the types of conditions which should key generation of functional notifications and are not all inclusive.

(a) SICC Functional Notifications. Functional notifications should be output when an advice transaction is received which requires a reply such as offer advice and when

reject advice is received to begin resubmittal action. These type of functional notifications provide an excellent opportunity to use skeleton file maintenance transactions for updating automated SSR files and generating the proper reply or resubmission transactions. These notifications should be output again when established timeframes for completing these actions are not met, or in the case of offer advice transactions, when an offer reply followup transaction is received from the IMM. A functional notification should also be output for processing when technical data followup transactions are received from IMM's. Other functional notifications should be part of the system redesign based on time standards and goals established in the SSR procedures.

(b) IMM Functional Notifications. Currently, functional notifications are output within DLA to indicate items which are close to the time standard established in the IMM Manual and the items for which advice is overdue. These functional notifications are output each cycle and do not seem to key specific manual actions. The system redesign should provide functional notifications when exception processing is required. When a followup for initial or final advice is received by an IMM and the required advice does not reside in the automated SSR files, a functional notification relating this information should be output for immediate manual processing. Functional notifications should also be output when advice is overdue to the SICC whether or not of a followup is received. Functional notifications should also be produced when responses to technical data followup transactions are received by the IMM. Other types of exceptional conditions which should key functional notifications so that manual processing is taken include:

- Multiple followup transactions sent to a SICC for the same item.

- Multiple followup transactions received from a SICC for the same item.

- Multiple reject advice transactions generated to a SICC for the same item.

PART 2 - MANAGEMENT, POLICIES AND PROCEDURES

A. INTRODUCTION

The DODSSR Study was assigned to identify problems associated with the systems for generating, transmitting, processing and controlling SSRs in order to develop systems and procedures improvements to promote effective and efficient supply support of DoD equipments. The systems approach was used to review the management environment consisting of the policies, procedures, organizations, functions and systems necessary to accomplish SSR processing. A 'top down approach' was used by first looking at the management organizations and their respective functions or responsibilities involved in the definition of requirements, and the subsequent design and implementation of systems to accomplish the functional requirements. The specific methodology included the use of systems analysis, performance evaluation and problem identification and analysis to develop and recommend improvements in SSR management, policies, systems and procedures. The comparative analysis of systems design and operational implementation is contained in Part 1 of this Chapter. This part contains the analysis and conclusions associated with management organizations/ functions and policy and procedures.

B. MANAGEMENT REVIEW

1. Organizational/Functional Assignment

The supply support request function interfaces with provisioning, inventory control, technical, procurement and cataloging functions. The functional responsibility for development of policy, determination of functional requirements, and design, development and implementation of systems varied significantly at the headquarters, systems design and operational levels. This was first noticed in the assignment of contact points for the DODSSR Study. The study assignment requested that members of the Special Projects Group (SPG) for provisioning be assigned as contact points for the study, because it was felt that this group would be the most knowledgeable in the entire process for generating, transmitting, processing and controlling supply support requests.

The SPG representatives were assigned as headquarters level contact points by the Army, Navy, Air Force, Marine Corps Defense Logistics Agency (DLA), and General Services Administration (GSA). But as a matter of practice, additional operational contact points for the headquarters level were assigned by two of the Components. When the study team attended meetings of the

SPG to participate in the discussion of problems or to provide status briefings, often the secondary contact points were not informed and did not attend the meetings of the SPG at which SSR matters were being discussed. In reviewing the functional areas that spawned our headquarters level contact points we noticed several distinct functional orientations. Some of the contact points had a provisioning orientation, while others had an integrated materiel management assignment and others had a cataloging or inventory control background. Although the SSR process is involved with all these functions, some of the contact points did not appear to possess a working knowledge of processes other than that of their immediate assignment, and matters pertaining to different functional areas did not appear to be well coordinated with the applicable functional elements when there was a split assignment of responsibility.

The functional requirements that are developed by the headquarters level influence the design, development and implementation of systems to implement the functional requirements. The degree of integration, interface or compatibility of automated SSR subsystems varied among SICC and IMM and to some extent reflected the split functional assignments at the headquarters level. In one case the automated provisioning subsystem was designed by one activity and the SSR subsystem was designed by another. In one case a separate subsystem was designed for incoming and outgoing SSRs. Two of the Components used program routines from the requirements subsystem to compute requirements while others built separate computational routines into their provisioning or SSR subsystems. The design of SSR subsystems in some cases appeared to be influenced by the fact that subsystems for other functional areas had already been developed and the SSR application was designed as an "add-on" application to interface with existing applications. In addition it was noticed that the design control of the systems design, and the operational control of the systems design organizations and/or the operational organizations sometimes come under the command control of different organizational elements at the Component headquarters level.

Responsibilities for generating, transmitting, processing, controlling and managing supply support requests also varied organizationally and functionally at both SSR submitting (SICC) and receiving (IMM) operational activities. Performance of the functions of selecting candidate requests, determining quantitative requirements, performing item identification, making method of support/level of support and advice decisions, screening catalog files, accomplishing item entry control, and performance of cataloging actions varied organizationally and functionally. Provisioning, technical, cataloging and inventory control organizations performed various tasks at submitting

activities. Inventory control, technical and cataloging organizations performed various tasks at the IMM receiving activities. The principal tasks at SICC submitting activities involve selection of maintenance significant items, determining method of management, method of support and level of support, and performing item identification/item entry control functions. At the IMM receiving activities the principal tasks include method of support/level of support decisions and item identification/item entry control functions. It would seem most logical that the tasks of generating, submitting, processing and controlling SSRs should be performed by the organizational entities having the predominant functions involved in the decision making processes involved in determining support requirements at the requesting activity and the responsibility for satisfaction of the requirement at the managing activity.

In view of the varied assignment of responsibilities for functional tasks related to the design, development and implementation of systems to accomplish the supply support request process, the Components should review in detail the management environment described in Chapter II, Volume I, and Volume II for each of the Components. This should permit a better understanding of the processes involved in requesting, obtaining and providing supply support and enable each Component to individually determine any organizational, functional or system changes required at headquarters, system design or operational activities to improve SSR processing.

2. Contractor and Provisioning Processing

The standard procedures for provisioning contained in MIL-STD-1561 (Appendix D, Reference 23) and preparation of provisioning documentation contained in MIL-STD-1552 (Appendix D, Reference 22) delineate the responsibilities of Components in the Department of Defense and of contractors in provisioning end items of equipment. The quantitative evaluation in Volume III indicated that most of the SSRs are generated as a result of the provisioning process. By the same token, most of the data contained in SSRs is obtained from the provisioning technical documentation produced by the contractor in accordance with the Provisioning Requirements Statement and Contractor Data Requirements List as specified in the end item contract. Supply Support Request control and transaction identification data are generally introduced by the SSR subsystem, although some control data such as item serial number is sometimes obtained from the provisioning documentation.

If data required in the SSR is not specified as required in the provisioning technical documentation, it will not be available for entry into the SSR. If the contractor does not

correctly enter required data into the provisioning list, it will be incorrectly entered into the SSR unless validated during provisioning processing by the provisioning activity and rejected for correction by the contractor prior to entry into provisioning files by the provisioning activity. Analysis of our field research and quantitative evaluation indicates that a number of errors are occurring due to a combination of data not being provided in the provisioning documentation, data being incorrectly entered in the provisioning documentation by the contractor and not properly validated and corrected during provisioning processing.

The time to ensure that data required for SSRs is available in a correct form is during the provisioning process. By the time an SSR is prepared, forwarded to an IMM, validated by the IMM, and rejected back to the SICCC, it may be too late to obtain the correct data from the contractor. In any event, it is much more difficult and time consuming to attempt to correct errors after they have been submitted to the IMM and rejected than to correct them during provisioning processing. It may be difficult to trace the audit trail for a line item that has been rejected by an IMM during SSR processing back to the SICCC SSR suspense files, then to the provisioning files and back to the original provisioning list to obtain clarification from the contractor. The provisioning list may already have been accepted by the provisioning activity and it may be difficult or time consuming to obtain the information from the contractor. If the PCC and ISN in the SSR do not directly relate to the PCCN and PLISN of the provisioning list, it may be impossible to obtain the information required to correct the SSR.

The Components should review their provisioning processing operations to ensure that data required for entry into SSRs is specified in the contract data requirements and the provisioning documentation should be validated to ensure that the data is correctly entered prior to accepting the provisioning documentation. Resubmission of the provisioning documentation or clarification of individual items should be obtained prior to entry of data for individual provisioning line items into provisioning files. Particular attention should be given to the following data.

- Technical Data. The lack of technical data or inadequate technical data was one of the most persistent problems reported during field research. About 40% of the part numbered SSRs are sent to the IMM without technical data. Some of the technical data that is received does not contain the minimum data required for stock number assignment.

- FSCM/Reference Number. The quantitative evaluation indicated that there are a large number of rejects attributable

to manufacturer's codes and reference numbers that have been incorrectly entered or formatted. These are some of the most important data elements and should be reviewed carefully. Consideration should be given by the Defense Logistics Services Center to prepare a training course in formatting and entering manufacturer's part numbers and codes. Training seminars should be given to contractors and provisioning activities.

- Unit of Issue. If the unit of issue is incorrect it cannot always be corrected by the IMM. This is a key element and must be meaningful and relatable to the requested retail and replenishment quantities.

- Item Names. An approved item name is needed to enable stock number assignment for an item. This is another element for which training should be provided by DLSC to contractors and provisioning activities.

- PLISN. The provisioning line item sequence number should be entered in accordance with the standard. The quantitative evaluation showed that the provisions of the military standard were not being adhered to by provisioning contractors and activities. The fifth position of the PLISN was not always being used to indicate adds and the sixth position to indicate deletions and modifications. The entire six positions were being used in some instances to reflect a basic six-position number instead of a basic four-position number with the fifth and sixth digits used to reflect adds, deletions and modifications. The PLISN should be unique to a PCC to prevent duplicates and to permit the maintenance of an audit trail.

- PCC. A separate PCC should be assigned to each provisioning list. The quantitative evaluation indicated that sometimes the same PCC was being assigned to an entire weapons system. When individual provisioning lists were received from the contractor for individual pieces of equipment on the weapon system, the same PLISN was being used for the same or different items of supply causing actual or apparent duplicates in SSRs that were sent out on the same or different days. If these SSRs are received and processed during the same cycle by the IMM, they can be treated as duplicates or advice sent out on one item may be incorrectly recorded by the SICC on the wrong item.

- Unit Price. The unit price is an item that should be available on every provisioning list and is a key element needed in processing of an SSR.

- Production Leadtime. This data element is needed to compute support dates for new items of supply and is needed to compute levels of support until an actual production leadtime can be established for new items.

3. Provisioning Screening. The quantitative evaluation indicated that there were a large number of rejects due to FSC/Manager and NSN/PSCN errors. These are items for which the IMM screened DLSC and obtained information that the SICC had forwarded the item to the incorrect manager, had placed the item in the wrong FSC, or had not picked up NSN assignments for part numbers or the latest standardization/replacement actions on record in DLSC. This is another area where DLSC should consider a training program for contractors and provisioning activities to promote more effective, efficient and timely provisioning screening. Consideration should also be given to automation of processing of the results provided by DLSC using the standardization codes, match codes and other information that could be used to make an automated decision. This would reduce the number of actions left over for manual review.

4. Provisioning/Supply Support Schedules

Current provisioning procedures provide for the provisioning activity to develop a provisioning performance schedule to coordinate the receipt and processing of provisioning documentation in order to select, procure and obtain repair parts to support end items by the end item delivery dates. The date repair parts are required and the date stock numbers are required that are included in SSRs are related to the end item delivery dates and the provisioning schedules. The production leadtime for the repair parts is included in the line item SSRs to permit the IMM to schedule the supply support request process to ensure repair parts are in the IMM's wholesale distribution system in time to meet the date repair parts are required.

If the IMM cannot meet the requested date for a new item, the IMM may provide a new support date to the SICC. The quantitative analysis indicated that the DRPRs being provided by the SICC were not realistic in terms of the production leadtime of the items being requested. The IMM is allotted 60 days from the date of receipt of the SSR to perform its actions and provide an NSN to the SICC. The combination of late submission of SSRs by the SICC in terms of the unrealistic date repair parts required and production leadtimes provided by the SICC are a major factor in the large number of new support dates being provided by the IMM and the failure to provide materiel and NSNs by the dates requested by the SICC.

The Components should review their provisioning performance schedules to ensure the timely receipt of quality provisioning technical data from contractors in terms of the end item delivery dates and repair parts production leadtimes, and to require the identification of IMM items and preparation and submission of SSRs sufficiently in advance of the production leadtime and the date repair parts are required in order to allow enough time for the accomplishment of IMM actions.

5. Performance Evaluation. Even though the SSR Procedures specify timeframes for completing events, there is no performance evaluation system to measure the performance of the SSR system. The IMM Manual does not establish any performance goals or objectives and does not provide for measurement criteria or a reporting system to measure performance against pre-established goals and report system accomplishments. Effectiveness and efficiency objectives and measurement criteria should then be established for critical events and a performance evaluation system established to measure the performance of the system. Accept/reject rates should be established for each of the transaction categories and on time completion rates established for critical events. The performance objectives and completion rates should be incorporated into the work measurement and performance evaluation systems of the SICC and IMM activities. Performance evaluation reports should be accumulated by activity over time and forwarded to the System Administrator for evaluation.

a. Allowed Times. The current timeframes in the IMM Manual should be revised to provide for more realistic times based upon the use of AUTODIN, elimination of the package concept for processing and use of automated processing and direct communication from data processing to AUTODIN processing, restricting manual processing to the minimum. A transaction date should be placed in each transaction which should be used as the basic starting point in measuring times for individual transactions and total supply support request life cycle time. The date of transaction should be the date the transaction was created and forwarded to AUTODIN for transmission. Recommended times are shown below:

- : AUTODIN Transmission - Five days from date of transmission to date of receipt.
- : Initial Advice
 - Provide initial accept/reject advice for an NSN/PSCN request within 15 days from date of the request transaction.
 - Provide initial accept/reject advice for a part number item within 30 days from the date of the request transaction.
- : Final/NSN Advice - Provide within 60 days of the date of the request transaction or 30 days after initial advice, whichever is sooner.
- : Offer - Provide an offer within 30 days of the date of the request transaction.

- : Replies - Reply to conditional accept and offer transactions within 30 days of the accept/offer transaction date.
- : Followups - All initial followups should be generated no earlier than five days after the expiration of the allowed time for completion of the transaction for which the followup is being sent. Subsequent followups should be generated five days after the allowed time for the expected response.
- : Responses - All responses to any followup will be made within 15 days of the date of the followup transaction. If a proper response cannot be provided within 15 days, an interim response may be provided indicating that the action is in process and that advice will be provided in 15 days from the date of the response transaction.
- : Resubmission of Rejects - All requests that have been rejected and require correction and/or resubmission will be resubmitted within 30 days of the date of the reject.
- : Request Cancellation - All SSR cancellations must be submitted within 15 days of the date of receipt of an advice transaction containing an unacceptable support date.
- : Technical Data Submission - Technical data which is available should be provided within 30 days of the transaction date of the request.
- : NSN Assignment - Seven days from date of transaction request for NSN assignment until accept of NSN.
- : Provisioning Screening - Seven days from date of screening transaction until receipt of results.
- : SSR Generation - Submit supply support requests within 30 days after SM&R, IMC and requirements determinations have been completed on IMM items.

b. Goals. Goals should be established to measure the effectiveness and efficiency of the SSR system. Performance objectives should be established for the measurement of the completion of critical events and to measure accept/reject rates and the submission of technical data.

(1) Reject Rates

- : NSN/PSCN Requests - 10% overall reject rate.
- 5% validation reject rate.
- : Part Number Requests - 20% overall reject rate.
- 10% validation reject rate.

(2) Technical Data Rate

- : Technical Data Rate - 75% supplementary technical data submitted for part number items.

(3) Completion Times

- : AUTODIN Transmission - 99% within allowed time.
- : Initial Advice - 90% within allowed time.
- : Final/NSN Advice - 90% within allowed time.
- : Replies - 90% within allowed time.
- : Responses - 95% within allowed time.
- : Resubmissions - 90% within allowed time.
- : Technical Data - 90% within allowed time.
- : NSN Assigned - 95% within allowed time.
- : Provisioning Screening - 95% within allowed time.

c. Management Reports

Both SICC's and IMM's should develop a performance system to measure the effectiveness and efficiency of the SSR system. Management reports should be developed to measure the accept/reject and technical data rates. Event completion times should be measured to determine the time to accomplish different individual events and total life cycle time. Reject, technical data submission rates and event completion times should then be compared with performance objectives to establish relative system performance.

The quantitative evaluation and edit/validation analysis provide examples of the type of reports that could be developed. Examples of the types of reports that should be generated include:

(1) Reject Rates

Reject rates should be measured by reject subcategory and total for all rejects by SICC and IMM. The report should be accumulated on a monthly or quarterly basis and the rates per reporting period projected to show any trends that may appear.

Reject rates should be developed for individual reject code and ranked in order of frequency from high to low. Rankings should be available by activity as well as totals. The high reject rate items should be reviewed to determine the cause of the reject rate; system, procedures or activity and a proposed change developed to correct the problem. The "Other" category should be continually reviewed to determine the reasons for its usage and whether there is an existing code to cover the condition. If there is a high frequency of occurrence of a condition for which there is no definitive code, a new code to cover the situation should be considered.

(2) Technical Data Rates. The report should show information pertaining to the incidence of items where technical data was required, available and received. The frequency of followups and responses to followups should also be measured. The report should show activity and system totals.

(3) Followups/Responses. Statistics should be generated on the number of followups and responses by followup/response category. Counts should be shown by activity and system total. The number of followups per request should be monitored to determine if the system is being responsive or if there is a communications problem.

(4) Rejects/Resubmissions. Statistics similar to that for followups/responses should be developed.

(5) Processing Time Statistics. Reports should be produced to measure the time to accomplish events in accordance with the allowed processing time. These reports should show the number and percent accomplished within the standard, the average time, the median time (50%) and the 90%-ILE as a minimum.

(6) Summary. The types of reports shown above should be generated to monitor and measure the performance of

the system. The measurements should be compared with pre-established goals to determine relative system performance. The use of the reports over time can be used to detect significant trends or problems and action taken to determine if operational methods, procedures, or systems need to be corrected on an activity or system basis. The reports can also be used to generate proposed changes to policies and procedures contained in the IMM Manual.

6. Technical Data Transmission

The AUTODIN/TELEFAX Test indicated the potential benefits to be gained from decreasing the time to transmit technical data while at the same time increasing the control over the process. Although the specific facsimile transmission system tested was not adequate for this purpose, it did show that the concept has merit if a more suitable system can be developed.

A study should be assigned to the Defense Logistics Analysis Office to perform further research and determine the feasibility of scanning technical data at one geographic location, converting the graphic data to an electrical or electronic signal and transmitting the signal to another geographic location to be converted to an image or facsimile of the input document of sufficient quality to be used for technical operations functions and retention in a technical data library repository.

C. POLICY

1. Supply Support Methods

The quantitative evaluation pointed out that there were a number of methods currently in use to obtain supply support. Item Management Coding (IMC) transactions are being used to adopt an item that is already being managed by an IMM. An IMC can be used whenever there is an existing NSN on an item. Under the current system the IMC transaction will accomplish the updating of DLSC records to record the IMC and to record user interest. The estimated demand data in the IMC is not used to perform method of support/level of support decisions.

The add user transactions, document identifier code LAU, that were previously forwarded by the SICC to the IMM are no longer used with the advent of the new SSR Procedures. The add user transaction is forwarded to DLSC by the IMM based upon the IMC or SSR transaction.

Special Program Requirements (SPR) transactions should not be used in lieu of an SSR. The SSR is intended to accommodate recurring requirements, while the SPR is intended to accommodate nonrecurring requirements. The study team concluded that the SPR was sometimes being used to make up for the failure to use SSRs properly, particularly in forecasting requirements for follow-on procurements. This is discussed more fully below.

The NIMSR transaction is used for nonconsumable support requests. The volume of transactions is so small that the manual system currently being used appears to be adequate. The information in the NIMSR is similar to the old nonprovisioning supply support requests. Since these manual transactions are similar, and processed in a similar fashion, it is recommended that any attempts to automate the NIMSR should be done with a view towards integrating the NIMSR system with the SSR system for consumable items as the old manual nonprovisioning SSRs were included in the automated consumable SSR system.

The study group concludes that all requests for supply support for consumable items should be made using the SSR transactions in accordance with the IMM Manual, whenever there is any predictable recurring requirement. If the expected demand is sporadic in nature or there is no predicted demand, the IMC transaction could be used if the SICC desires only to accomplish the cataloging actions of recording the IMC and the user interest of the SICC Component. If there is predictable demand or if the requirement is generated from the provisioning process, the SSR should be used to permit consideration of the forecasted demand. The IMC should be used only if the requirement is generated outside the provisioning process and if the adopting activity desires cataloging action only and is willing to rely on the demand forecasting process that considers demands based upon requisitions.

2. Supply Support Request Usage. The SSR Procedures define an SSR as "A request submitted by a SICC to the CIMM or WIMM which manages or is the potential manager, of the item or materiel required. For items requiring Item Management Coding, the SSR is used as an IMC card." The IMM Manual does not list a specific purpose, objective or intent for SSRs. Chapter I of the IMM Manual provides general guidance applicable to Item Management Coding, Logistic Reassignment and Supply Support Requests. The stated purpose or objective is to eliminate the duplication of effort in the wholesale materiel management of consumable items through the application of approved IMC criteria and the utilization of uniform procedures. The only specific purpose or objective for SSRs is a reference to IMMs to provide timely support. Accordingly, it is felt that the policy section of the IMM Manual containing the SSR procedures should be revised to include a more appropriate definition and purpose of supply support requests to reflect the intent of integrated materiel management.

a. Proposed SSR Definition. A supply support request is a request submitted by a SICC to an IMM to obtain Integrated Materiel Management support for new or existing consumable items of supply. Integrated Materiel Management is defined in DoDD 4140.26 (Appendix D, Reference 16) as the exercise of total Department of Defense or Federal Government management responsibility for a Federal Supply Group/Federal Supply Class (FSG/FSC),

commodity or item by a single agency. Normally, it includes computation of requirements, and the functions of funding, budgeting, storing, issuing, cataloging, standardization and procuring.

b. Proposed Purpose of SSR. The purpose of a supply support request is to request integrated materiel management support from an IMM including the following actions:

(1) Item Management Coding (IMC). The SSR acts as an IMC card when the submitting Component has not previously coded the item for integrated materiel management. The IMM is charged with the responsibility of acting as the Item Management Classification Agent and providing cataloging and supply support for items under the cognizance of the IMM.

(2) Registration of User Interest. The SSR is used to request the addition of an activity as a user of an item when that activity has not been previously recorded in the records of the IMM and DLSC, and for which support has not been previously provided.

(3) Request for Supply Support. The requesting activity provides a forecast of retail and replenishment quantities to support its requirements for the support item being requested to the IMM to determine the method and level of support to be provided. Method of support includes the method of management by the IMM such as centrally stocked, or centrally procured but not stocked; and level of support includes the quantity of materiel to be procured and/or stocked to support the supply support request.

(4) Cataloging Support. The SSR provides management and technical data to be used by the IMM to perform the following actions:

(a) Item Identification. This is the description of the item in relation to other items of supply.

(b) Item Entry Control (IEC). Determination of whether the item already exists in the system or if there is a suitable substitute.

(c) NSN Assignment. IMM requests DLSC to assign an NSN for new items of supply for which integrated materiel management is assumed.

(d) Catalog Management Data. IMM updates the management data segment of DLSC files to record such data as unit price, unit of issue, etc., and to publish catalogs.

c. Applicability. The SSR Procedures should be mandatory for all DoD and civil agencies in requesting supply support for consumable items and no other procedures should be permitted.

3. SSR Generation Criteria

Policies and procedures for generating SSRs are contained in the IMM Manual (Appendix D, Reference 9), DoDI 5100.63 (Appendix D, Reference 5), DoDI 4140.42 (Appendix D, Reference 10) and DoDD 4140.40 (Appendix D, Reference 19). These directives are subject to interpretation and contain conflicting language regarding the criteria for generating an SSR, particularly for items with an existing stock number. The criteria and procedures vary by Component and sometimes within Component for generation of SSRs for both new and existing items of supply. Some Components submit requests for all new items that have a Source Code P (procured). Other Components submit a request only if a P-coded item has a quantitative requirement that equals or exceeds a specified parameter.

Some SICC's submit an SSR for an existing item only if the submitting activity is not already recorded as a user on the item. Other Components submit an SSR for an existing item only if the requirements exceed a specified dollar value parameter. Some Components do not submit an SSR for an item if the requirement is not generated during the provisioning process; an IMC transaction is sent instead.

Another aspect of the problem involves the generation and submission of change requirements. The same directives previously referenced speak to the submission of requests for initial, follow-on, reprovisioning and phased provisioning in a general fashion. The statistics generated by the DODSSR Study indicated that changes of any type constituted less than one percent of the total SSRs submitted during the entire data collection period. Either very few changes are being submitted, or those that are submitted are sometimes being identified as an initial submission.

The generation criteria for SSRs for new and existing items should be more clearly spelled out in the IMM Manual and in DoDI 4140.42 to cover the following conditions:

- * Initial requests for new and existing items.
- * Subsequent submission of SSRs as initial or change transactions to cover the following circumstances.
 - Equipment design changes.
 - Follow-on provisioning of the same equipment from the same contractor under a different contract.
 - Reprovisioning of the same equipment from a different contractor under a different contract.

- Phased provisioning of the same equipment from the same contractor under a formal program.

- Requirements for the same equipment from the same contractor under the same contract with equipment deliveries spread across multiple years.

* Nonprovisioning requirements.

The policy in DoDD 4140.40 should be revised to conform with the policy in DoDI 4140.42 and the IMM Manual. The policies and procedures in DoDI 5100.63 are redundant with the IMM Manual and the directive should be canceled and its policies and procedures incorporated into the IMM Manual.

4. Method of Support/Level of Support Determinations

The role of the SICC and the IMM in determining the method of support and level of support needs to be clarified. Currently the supply support request contains certain key data elements that are used by the SICC to convey information to the IMM that may be or may not be used by the IMM in determining the method and level of support to be provided. The intent of the entry and use of these data elements by the SICC and processing and use by the IMM are not clear. These data elements are discussed below.

Method of support in this sense is used to mean whether the item will be stocked or not stocked in the supply system, and whether it will be centrally or locally managed. Level of support involves the determination of the depth or quantity of items being stocked. A policy review should be made by OASD(MRA&L) to determine the respective roles of the SICC and IMM in determining method and level of support.

a. Acquisition Advice Code (AAC). The AAC is the principal vehicle used by the IMM today to indicate the method and to a certain extent the level of support being provided for an item of supply. The supply support request provides for the SICC to enter an AAC J for new items of supply if the SICC wants to recommend central procurement with no stockage. DLA will assign AAC J to an item as the method of support if J is received in an SSR. An IMM may send notification of AAC assignment using the advice transaction with an appropriate Action Taken Code. The quantity fields must be blank when an AAC J is entered for a new item. The procedures specify that an AAC may be entered to recommend stockage for existing items of supply if the item is not currently being managed as a stocked item. There are no procedures indicating how the IMM is to use the entry; whether consideration is mandatory or optional. Current procedures and usage of the AAC are conflicting, varied and vague. This code should either be deleted, combined with another code, or definitive procedures and criteria for its entry by submitters and

processing by receivers should be provided. Pending policy ruling by OASD, it is recommended that the following entries be permitted by the SICC.

(1) AAC D - DoD integrated materiel managed, stocked and issued.

(2) AAC G - GSA integrated materiel managed, stocked and issued.

(3) AAC J - Centrally procured, but not stocked. Entry should be permitted when quantity fields contain other than zero as well as zero.

(4) AAC K - Centrally stocked for overseas only.

(5) AAC L - Local purchase authorized.

(6) AAC U - Insurance item. Note: AAC Z currently identifies both insurance and numeric stockage objective items. The two need to be separately distinguished, since different rules are used in migrating items from numeric stockage objective or insurance to demand based and back.

(7) AAC Z - Numeric stockage objective item.

b. Replenishment Quantity

The replenishment quantity is described by the SSR Procedures as the quantity of the item which the SICC anticipates will be required for replenishment from the IMM distribution system during the first year of operation of end items provisioned or other projects. The quantity is to assist the IMM in requirements computation to ensure that adequate wholesale backup stocks are available until normal demand patterns are established. There does not appear to be too much controversy that this is a forecast or a recommendation from the SICC to the IMM. The problem seems to be the variance in interpretation of what is to be entered into this field and how it is to be used.

If 100 equipments are being procured, with 10 to be delivered the first year, 25 the second year, 25 the third year and 40 the fourth year, what quantity is to be entered into this field? Should replenishment quantities based upon the first year only be entered into this field? If so, should requests be submitted in the subsequent years for the other requirements? Or should a yearly average of all 100 equipment requirements be entered in the quantity field. If requirements for each year are submitted separately, it is conceivable that the anticipated demand for equipments delivered in a particular year would be too low to warrant stockage, but the anticipated requirements for year one plus one or more subsequent years would warrant stockage.

Stockage based upon demands from requisitions may take too long to provide responsive support for the large equipment deliveries in later years.

Another question that arose was whether the replenishment quantity should be used only for new items of supply, whether it should be used to forecast and augment wholesale stocks for existing stocked items, or whether augmentation of stocks for existing items should be based solely upon the retail quantity.

Clarification should be provided by OASD(MRA&L) on the policy, criteria and procedures for entry of data in this field by SICC's and upon usage of this field by the IMM. The clarified policy, criteria and procedures should be incorporated into DoDI 4140.42 and into the IMM Manual.

c. Retail Quantity

The retail quantity is described in the SSR Procedures as the quantity of an item required from the IMM distribution system to satisfy initial support requirements during the first year of operation of the end item provisioned, commencing with the date repair parts are required (DRPR). This includes quantities to outfit or increase levels in all organizational, intermediate and depot level activities supporting the end item and all other quantities intended to be requisitioned by the using Component for Component owned retail pipeline stock in support of the end item.

The same problem obtains for retail quantity for multiple equipments being delivered in different years. Should the quantity be averaged, should it be the total retail requirements for all equipments for all years, or should the quantity for the first year only be entered? If the quantity for the first year only is entered, should initial or change SSRs be sent for the subsequent deliveries in later years?

There seems to be a difference of opinion among SICC's and IMM's as to whether the retail quantity is a forecast or recommendation, or whether it is a mandatory quantity that must be supported as a firm requirement. Should the retail quantity be treated the same for new and existing items? If an IMM procures retail stocks for new items that are going to be stocked by the IMM, should the IMM also procure retail stocks for new items that are designated for central procurement but not stocked? The practices and opinions of both SICC's and IMM's vary for both replenishment and retail quantities. Policy, criteria and procedures for entry by submitters and processing by receivers of retail quantities should be clarified for retail quantities as well as replenishment quantities. The policy review should also consider whether both retail and wholesale quantities are required or whether the replenishment quantity can be forecasted based upon the retail quantity. The clarified policy, criteria and procedures should be incorporated into DoDD 4140.42 and the IMM Manual.

d. Systems Designator

There are currently two data elements in the Program Data Supply Support Request (PDSSR) to indicate the designation of the end item or system in which a repair part is contained. The end item name, NSN, type or model number may be entered. The quantitative analysis indicated that the entry of this data element was quite inconsistent and relatively useless as a valid identification element for an end item or system. Although the entry could sometimes be understood on a manual basis, the variations in entry of the same designation made it virtually impossible to use on an automated basis.

There is also a provision for entry of a weapon system code (WSC) in the PDSSR. This code is an optional entry of codes assigned to selected weapon systems under Enclosure 1 of DLAR 4140.38 (Appendix D, Reference 28). The code is to be entered in the PDSSR when the SSR submitter desires to advise the IMM, otherwise the field is to be left blank. The quantitative analysis indicated that blanks were entered about 93% of the time. Of 75 different code entries 12 were valid codes and 63 were invalid, i.e., the codes were not listed on the enclosure to the regulation. Although the SSR Procedures reference the Weapon System Regulation, there are no procedures pertaining to the use of the code by either the SICC or the IMM and there is no known usage under the current system.

A DLA letter of 18 May 1977 (Appendix D, Reference 29) refers to the DLA Weapon System Regulation and outlines a procedure for the Military Services to nominate selected weapon systems to be covered by the provisions of the Weapon System Letter. The nominations are to be identified by Provisioning Control Code (PCC) not WSC. After approval by DLA, the SSR submitter is advised to use the code in the PDSSR and the Defense Supply Center will recognize the code in combination with the submitting activity code. The procedures in the letter provide for special stockage consideration of items identified to an approved weapon system. The special stockage consideration provides for initial stockage of items that would not normally qualify for stockage under the stockage criteria published in DoDD 4140.42.

The WSC as currently entered into the SSR has no real meaning or usage, since the PCC is being used in the SSR to identify items as essential to weapons systems for priority processing and initial stockage considerations. The PCC is supposed to be a control data element to control the sequencing and processing of SSRs, not an end item designator per se. It would appear that a meaningful end item designator should be established that will permit identification of individual items to the end item in which it is contained not only for the purpose of making method of

support/level of support decisions, but to provide an automated audit trail of association of the supply support determinations on individual support items in an end item in order to provide status of support on an end item or system basis as well as on an individual item basis.

The Army, Navy and Air Force currently are using two-digit codes to identify the application of support items to end items, systems or programs. These codes are described in the DIDS Manual (Appendix D, Reference 25) Tables 60, 65 and 66, with an assigned Data Record Number (DRN), description of the usage of the codes, and conventions for their maintenance and publication. It is felt that the use of these codes would provide a better identification of items to their application since it would be more meaningful to the Services in terms of their ongoing systems and would provide a more precise meaning to the IMMs. These codes could be used to identify item application for audit trail purposes and in making method of support/level of support determinations.

The codes are the Navy's Special Material Identification Codes (SMICs), the Army's Special Group/Weapons System/End Items Code portion of their Materiel Category Codes, and the Air Force's Materiel Management Aggregation Codes (MMACs). These codes should be entered into each line item request and the Weapon System Code in the PDSSR should be abolished.

e. Source Codes

Source Codes are part of the Source, Maintenance and Recoverability (SM&R) Codes. The source codes are assigned to support items to indicate the manner of acquiring items for the maintenance, repair or overhaul of end items. The SSR Procedures specify the entry of codes in the P₁ series (procured). The procedures do not specify the reason for entry of the code by the SICC or the use of the code by the IMM. Currently, DLA is the only known user of this code. If a PB Source Code (Insurance Item) is entered, DLA will stock the item as an insurance item if the SICC has not recommended the item for central procurement without stockage.

The quantitative evaluation indicated that there was a wide variation in the application and usage of Source Code PB. Acquisition Advice Code Z also indicates that an item is an insurance item, but the use of Code Z may mean that the item is a numeric stockage objective item. There is a space in the SSR for entry of the AAC, however, if the item is not an active NSN item the only provision is for the SICC to enter an AAC J to recommend central procurement and not stocked. Even if the procedures permitted the entry of AAC Z, the only way to tell if

AD-A098 005

DEFENSE LOGISTICS ANALYSIS OFFICE FALLS CHURCH VA
DOD SUPPLY SUPPORT REQUEST STUDY (DODSSR). VOLUME I. BASIC REPO--ETC(U)
DEC 80

F/G 15/5

UNCLASSIFIED

NL

3 of 3
all
4-10-80

END
DATE
FILMED
5 81
DTIC

the item was recommended as an insurance or numeric stockage objective item would be to check the source code for the presence or absence of Code PB, which is a rather cumbersome and roundabout process to permit a determination of the condition.

The need for a SICC to designate an item as an insurance or numeric stockage objective item and the usage of the designation by the IMM should be clarified by OASD(MRA&L). Our research indicated that the Service Components expressed a desire to convey the intelligence that an item was an insurance item or a numeric stockage objective item to the IMM and that the IMM consider this intelligence in their method of support/level of support determinations. Pending policy clarification by OASD(MRA&L), the study group recommends that a single method be used to convey this information. It is recommended that AAC Z be used to convey this information and that the source code be eliminated because of the variability of its use and understanding for supply purposes. The definition of AAC Z should be revised to split out insurance and numeric stockage objective designations. It is recommended that a new AAC Code U be assigned to designate insurance items with AAC Z used to designate numeric stockage objective items.

f. Essentiality

During our headquarters and field research the Military Services indicated a requirement to communicate essentiality to IMMs for consideration in stocking items because the items were essential to a critical application. Various correspondence among the Services, DLA and OASD also addressed this requirement. There are a number of factors involved in the consideration of essentiality. The essentiality of a support item to the next higher assembly or equipment, the essentiality of the equipment and/or the essentiality of an equipment or weapon system because of a particular mission or application. In addition, there is the question of the responsibility of the SICC and the IMM in the identification, assignment and use of essentiality for consideration in initial stockage decisions and follow-on replenishment.

There is no direct method of communication of essentiality in the SSR under the current system. However, there are a number of data elements that could be used, or are being used, to denote or connote essentiality. Some of these vehicles are being used under the current system in method of support/level of support determinations. The definitions of insurance and numeric stockage objective items include the word essentiality. The source code PB designates an item as an insurance item. AAC Z designates an item as either a numeric stockage objective item or an insurance item. The use of a weapon system code with a

reference to the weapon system program regulation connotes essentiality on an equipment basis, although the PCC is used in place of the WSC to provide special stockage considerations for supply support requests for items in approved weapon systems.

The determination of the responsibilities of the SICC's and IMM's in identifying items or equipment as essential, the definition of essentiality and the rules for application of essentiality by SICC's and IMM's in method of support and level of support decisions by SICC's and IMM's is beyond the scope of the DODSSR Study. The study team recognizes the potential need for using essentiality for initial stockage and follow-on replenishment considerations. It is recommended that OASD(MRA&L) conduct a policy review in conjunction with the Components to determine the need for the designation of items as essential and to establish policy and criteria for the identification, definition and application of essentiality to support items and equipments and to develop rules for its usage in initial and follow-on stockage considerations. The policy, criteria and rules should then be incorporated into DoD 4140.42, the IMM Manual, and DLAR 4140.38 weapon systems support requirements.

The DODSSR Study Team is concerned with the convention used to convey essentiality in the SSR. It is felt that a single direct and simple method should be used in the SSR that will convey item and equipment essentiality. Pending the completion of the OASD(MRA&L) policy review it is recommended that the essentiality codes contained in MIL-STD-1552 be used to convey item essentiality. This is a one-digit code that indicates the degree to which the failure of the part affects the ability of the end item to perform its intended operations. These are standard codes that have a standard definition that have been coordinated among the Components. These codes can be used in combination with the system designator, recommended by the DODSSR Study, to relate item essentiality with end item or system essentiality, and to apply this relationship when making initial and follow-on stockage determinations.

5. Accumulation of Requirements

Currently the decision to stock a part numbered item or to change the stockage decision of an existing item are made based upon the consideration of individual supply support requests. The SICC's feel that too many items are being classified as centrally procured and not stocked. The SICC's feel that these items will experience demand and that it takes too long to convert an item from centrally procured to stocked on the basis of subsequent demand from requisitions. The SICC's recommend that the IMM's accumulate demand contained in the SSR's over time, and change the management decision to centrally stocked if the accumulated demand warrants it.

The incidence of duplication of control numbers for the same items and occurrence of SSRs with the same PCC with different item serial numbers for the same item on the same day or in the same cycle indicates that the SICC's are not attempting to roll up demand for the same item across PCCs or even within the same PCC. Generally speaking, the IMMs make stockage determinations based upon the consideration of individual SSRs and do not make any attempt to roll up SSRs or to maintain a history of requirements for the same item for future stockage considerations.

Some consideration should be given to the rolling up of demand by the SICC prior to submitting the SSR and by the IMM in rolling up demands for the same item in the same processing cycle and accumulating demands in SSRs over a forecast period. It would appear that the SICC should consider repetitiveness of demand for items within the same PCC for the same activity. The IMM should consider demands for the same item for different PCCs for the same activity and demands for the same item for different activities.

The DODSSR Study did not attempt to quantify the potential for rolling up or accumulating demand because the requirements determination processes for computing the range and depth of item requirements are outside the scope of the study. An extract could be made of SSR suspense files by SICC's and IMMs over a forecast period. The selected SSRs could then be processed through the programs currently used to compute range and depth requirements. The SSRs could be first processed through individually as is the case today. The selected SSRs could then be rolled up and the summed quantities processed through the computation programs to determine the number and percent of items that would be stocked if the demand were accumulated. This process could be accomplished using the existing computation programs in the test mode without affecting existing records for active items and without extensive reprogramming. The results of the test would then form the basis for determining whether accumulation or roll up of SSRs demand should be performed by the SICC or the IMM on a continuing basis.

6. Funding of Requirements

The policy contained in DoD directives is not clear as to who has the responsibility for budgeting and funding requirements contained in SSRs. The following directives apply:

- DoDD 4240.26, Integrated Materiel Management for Consumable Items
- DoDD 4140.40, Basic Objectives and Policies on Provisioning of End Items of Materiel

- DoDI 4140.42, Determination of Initial Requirements for Secondary Items
- DoDI 5100.63, Provisioning Relationships Between the Military Departments and Defense Agencies and Commodity Integrated Materiel Managers

It appears to be clear that the IMMs have the responsibility for budgeting and funding for the replenishment quantity. However, the language in the referenced directives is ambiguous for the retail quantity. When an item is accepted for supply support by DLA, and the item is managed as a stocked item, DLA considers the retail quantity and budgets, funds and procures a retail quantity based upon the retail quantity contained in the SSR. However, if a new item is classified as not stocked, the SICC must send a funded requisition or MIPR 180 days in advance of the date of need of the requirement. This appears to be somewhat inconsistent with the advance procurement and stockage of retail requirements for items designated for stockage. Also, the requirement to send a funded document 180 days in advance of the need date may be somewhat unrealistic considering that the SICC must wait for an NSN prior to requisitioning the item and the leadtime for the item may be less than 180 days. In comparison, there does not appear to be any 180 day constraint on the SICC's involving the procurement and requisitioning of stocked items whether they are new or existing items.

OASD(MRA&L) should review the policy on financing SSR requirements and clarify the policy in the referenced directives. Consideration should be given to the funding of the retail requirement by the IMM or making the SSR a funded document for the retail portion of the requirement. It would appear logical to treat the retail requirement for stocked and not stocked items the same regardless of whether the retail quantity is funded by the SICC or the IMM.

7. Technical Data Requirements

The lack of technical data was cited throughout the study as one of the major problem areas in supply support request processing. SICC's complained of the difficulty in obtaining technical data from contractors and the failure to receive technical data from contractors. IMMs complained that technical data frequently was not received from the SICC's and that in many cases when it was received, it was insufficient to obtain a stock number for the item, let alone perform item entry control functions. In addition to the availability of technical data, and the quality of the technical data for use in technical operations, another problem experienced by the study group during the AUTODIN/TELEFAX Test was the legibility of the technical data. The legibility

of the technical data being received was questionable for manual use of the hard copy as received and even more so for use in making an aperture card to be placed in a technical library or for electrical transmission from one location to another.

The statistics generated by the study group confirmed that technical data was available for part numbered items only about 40% of the time. The question arises as to whether contracts are clearly specifying the requirement for technical data, the conditions under which technical data is available even if it is a contractual requirement and the purpose for which technical data is required. The study team intended to pursue a study subset to research the availability of technical data, the quantity and quality of technical data being received and the requirement for technical data from a SICC and an IMM standpoint. Resources were requested from some of the Components to perform the research, however, the specialized technical personnel qualified to make such a review were not made available to the study group. Technical personnel were needed from both SICC and IMM to pursue this research on an objective basis. When the resources were not provided, the study team cancelled the review of technical data.

It is still felt that a study of the usage of technical data should be conducted. It is recommended that OASD(MRA&L) establish a policy review of logistics technical data. The definition and purpose of technical data should be studied and requirements established for its acquisition, use and retention for the following categories of usage:

- Selection of maintenance significant items.
- Item entry control.
- Catalog identification.
- Purchase description.

8. Supply Support Request Cycle

At the beginning of the study, the study team attempted to establish boundaries around the supply support process to govern the scope of the study research. An attempt was made to determine when the supply support request process started and when it was considered complete. The answers received to this question of when the process started and when it was complete were quite varied.

The most common and logical answer received from SICC activities was that the process started after maintenance significant items were selected and the maintenance significant items

had been item management coded for integrated materiel management. At this time it is now within the capability of the SICC to determine specific quantitative requirements and to prepare an SSR containing the necessary management, technical and control data to be submitted to the IMM.

The most common answer from both SICC's and IMM's as to the completion of the process was upon receipt of final advice. However, the interpretation of what constitutes final advice varied among both SICC's and IMM's. Under some interpretations, a final advice could constitute a reject, reply to an offer, notification of an NSN assignment or acceptance of a request for an NSN item. The real key to answering the question is when has support been accepted, and when can materiel be requisitioned, and when will materiel be available for delivery to using activities? In other words when does the IMM assume responsibility for support of the item.

Under the current system the SSR submitter is required to provide a date repair parts are required and the IMM is supposed to provide a new support date if the requested support date cannot be met. The current procedures do not permit an IMM to provide a new support date for an active item managed by an IMM. It is presumed that the IMM accepts the item immediately for support at the time a request for an NSN item is accepted regardless of the stock position for the item, unless the item is classified as centrally procured, but not stocked.

If the IMM cannot meet the requested support date for a new item, the IMM may provide a new support date to the SICC, while authorizing the SICC to procure retail requirements if the support date is not satisfactory. The distinction between the authorization of the SICC to procure retail requirements for new items, but not for existing items is not understood. It would appear that the stock position and leadtime for acquiring stock would dictate the support date for existing items just as much as it does for new items. The study team could not assess the frequency of procurement of retail requirements when new support dates are established for new items because the SICC's are not required to advise the IMM of the amount of the retail quantity that is purchased.

The support date in the SSR is somewhat analogous to the effective date of transfer for logistic transfers from one manager to another. The principal interest in the support date by the SICC is to determine when materiel may be requisitioned to fill the retail requirements. The biggest concern is for part numbered items, since current policy discourages part numbered requisitions. The Defense Logistics Agency does not generally initiate procurement action for new items until the stock number

has been assigned to an item. The SICC's are used to Provisioned Items Orders (PIOs) being placed on the end item contractor for new retained items prior to the assignment of a stock number. The stock number is furnished to the contractor prior to delivery of the repair parts.

A current provisioning objective as stated in DoDI 4140.40 (Appendix D, Reference 19) is to program sufficient time into the provisioning process to perform cataloging operations incident to having support items received at maintenance and supply activities with NSNs. To meet this objective the SICC has an obligation to submit SSRs sufficiently in advance of the support date to permit the IMM to perform its provisioning, cataloging and procurement actions in order to receive materiel into the IMM distribution system by the support date. The quantitative analysis indicated that the DRPRs being provided by SICC's were not realistic in terms of the production leadtime of the items for which SSRs were being submitted resulting in advice from the IMM with new support dates.

The DRPR is defined in the SSR Procedures as the date that materiel must be in the IMM's supply system to support requisitions submitted by the users of the end item. The IMM is allotted 60 days from the date of receipt of the SSR to perform its actions and obtain an NSN and provide notification to the SICC. The SICC is authorized to followup for an NSN 70 days after submission of the request transaction. The IMM is allowed 15 days to respond to the followup for NSN advice. If the SICC has received an initial accept for a part number item, the response to the followup does not contain an NSN, or if no response is received in 15 days; it is reasoned that the SICC should be permitted to requisition items using part numbers in order to receive materiel by its operational need date. The IMM should be required to maintain a reference capability to cross reference the part number requisition to items for which supply support has been accepted but for which an NSN is pending.

9. Transmission

The research by the DODSSR Study Team including system design review, operational implementation review, data collection and analysis, and the AUTODIN/TELEFAX Test clearly indicate the advantage of electrically transmitting SSR transactions that do not require technical data over AUTODIN. This includes the following categories of items:

- Items with stock numbers.
- Permanent system control number items.

- Part number items for which technical data is not required or will not be supplied.

The advantages of submitting technical data electrically can be realized only if the data can be easily and rapidly transmitted with the received image being of a quality that approaches the requirements for entry into the technical data library. The TELEFAX system tested did not meet these requirements, but the concept of electrical transmission has potential and should continue to be explored.

The advantages of mailing technical data while sending the SSR transaction over AUTODIN are not so obvious as the case for those items not requiring technical data. However, there appears to be a potential for a decrease in total processing time, as well as an increase in control if the technical data is properly marked with control data, at a minimum the PCC, ISN, and submitting activity, and submitted as early as possible by the SICC, including the consideration of mailing the technical data after potential SSR candidates are known, but prior to generation of the SSR transaction. The item name should be supplied with the SSR transaction. A method of following up for technical data should be established and a management report developed to show information pertaining to the instance of items where technical data was received when required, frequency of followups, response to followups and final technical data received. Goals should be established and a copy of the report should be provided by the IMM to each of the SICC's in order to monitor and control the process.

The SSR procedures and systems should be revised in accordance with the following recommendations.

a. All supply support requests for which technical data is not required should be sent over AUTODIN using the most direct interface between computer operations and AUTODIN operations available at the sending and receiving activities. Item name information should be provided for all items forwarded over AUTODIN. An early implementation date should be provided for this recommendation since it can be easily implemented by all activities possessing AUTODIN terminals.

b. Procedures and systems at SICC's and IMM's should be revised to transmit SSR part numbered items for which technical data is required and available over AUTODIN with the technical data marked with control data submitted via priority mail as soon as SSR candidates are selected.

c. A followup and reporting procedure should be established to monitor and control the transmission and receipt of

technical data. A procedure for following up for technical data should be established. A management report should be developed to provide measurement of the time of submission/receipt of technical data and to monitor and control this process.

d. A further exploration should be made of the potential for electrical transmissions of technical data.

D. PROCEDURES

1. Introduction

The policies and responsibilities for integrated materiel management of consumable items are contained in DoDD 4140.26 (Appendix D, Reference 16). This directive authorizes the publication of an operating procedures manual for integrated management of consumable items. Two volumes are authorized, one for commodity oriented and one for weapon system oriented items. The requirement for supply support requests emanates from the requirement to provide integrated logistics support for systems and equipments. Most of the supply support requests are generated through the provisioning process governed by DoDD 4140.40 (Appendix D, Reference 19) and DoDI 5100.63 (Appendix D, Reference 5). The provisioning directives in conjunction with the directive providing guidance on the determination of initial requirements for support items, DoDI 4140.42 (Appendix D, Reference 10) contain policy on the generation of supply support request requirements, which are to be submitted under the operating procedures contained in the IMM Manual.

a. Volume I of the IMM Manual contains procedures for commodity oriented consumable items and includes the following coverage.

(1) Chapter 1 is a general chapter containing authority, purpose, applicability, responsibilities and administrative subjects.

(2) Chapter 2 contains item management coding criteria.

(3) Chapter 3 contains item management coding and classification procedures.

(4) Chapter 4 contains supply support request procedures.

(5) Chapter 5 contains exemption procedures from integrated materiel management.

- dures.
- (6) Chapter 6 contains logistic reassignment procedures.
- (7) Chapter 7 contains reporting and auditing procedures.
- (8) Chapter 8 contains financial operations procedures.
- (9) The appendices contain detail criteria, procedures, instructions, formats and codes that apply to the individual chapters.

b. Volume II of the IMM Manual contains procedures for weapon system oriented items and includes the following coverage.

- (1) Chapter 1 contains the introductory material.
- (2) Chapter 2 contains item assignment procedures.
- (3) Chapter 3 contains logistic reassignment.
- (4) Chapter 4 contains supply operations procedures.
- (5) Chapter 5 contains technical operations procedures.
- (6) Chapter 6 contains financial operations procedures.
- (7) The appendices contain detail criteria, procedures, instructions, formats and codes that apply to the individual chapters.

Chapter 4 and Appendix E of Volume I of the IMM Manual contain the supply support request procedures that implement the policies contained in the integrated materiel management and provisioning directives. As discussed in Chapter IV, Volume I, of this Report, the SSR Procedures constitute the functional requirements statement which was used by the Components to design systems to generate, transmit, process and control SSRs. The SSR Procedures provide a set of conventions consisting of card formats, data elements and definitions, and codification instructions for mandatory, conditional or optional entry of data into card formats.

A review and analysis of the SSR Systems that were designed and implemented by the Components indicated that these systems contained some basic problems. Some of these problems

are attributable to the system design per se. Others are attributable to management organizational/functional differences, while some are caused by the lack of clear policy statements for certain critical areas. However, the SSR Procedures as written, are a primary factor in many of the problems being experienced. Although the procedures provide punched card formats, they appear to be oriented to a manual batch processing user, or a sequential batch process computer system with excessive manual intervention. The procedures need to be restructured and written to accommodate the type of automated computer systems available today at the principal SSR processing activities. In other words, "the system requirement should drive the functional requirement" as opposed to "the procedures driving the system."

Part 1 of this Chapter contains a summary analysis and conclusions based upon the systems design and implementation review. The systems analysis points out certain improvements that should be made in the systems themselves, and indicates changes that must be made to the procedures to permit a redesign of the systems in order to make the systems more effective and efficient. Paragraphs B. and C. of Part 2 of this Chapter covered management and policy improvements, clarification and changes that are required. This paragraph discusses required changes to the IMM Manual that are needed to make the procedures a truly effective functional requirements statement that is compatible with the supply support concept and conceptual system requirements reflected in this Report.

2. IMM Manual

a. Organization

The IMM Manual currently contains a separate volume for commodity oriented consumables and one for weapon system oriented consumables. The procedures for requesting supply support for WIMM items were originally in an appendix in Volume II. However, the procedures for SSRs for WIMM items were incorporated into Volume I for commodity oriented items, effective May 1978. The SSR procedures for both CIMM and WIMM items are very similar and this appears to be a very logical transfer.

The remainder of Volume II contains sections that are extremely redundant with Volume I. Other sections of Volume II appear to be redundant with procedures contained in other military standard system procedures manuals. Volume II contains much dated material. It would appear that with the successful merger of the CIMM and WIMM SSR procedures into one manual, the redundancy of the coverage in other areas and the fact that much of the material in Volume II, is outdated, Volume II should be considered a prime candidate for a merger with Volume I. The current reference in the title to commodity oriented items is now obsolete since it now contains SSR procedures for both CIMM and WIMM items.

A complete reorganization of Volume I should be accomplished with the merger of Volumes I and II. The manual should be made into a true procedures manual that implements the policy, objectives and intent of the DoD directive for integrated materiel management. The manual for commodity oriented items was originally an item management coding manual and contains much of its original orientation, organization and emphasis. Much like the "add on" appearance of some of the systems design of some of the SSR subsystems that was observed during the study, the SSR Procedures appear to have been "added on" to the procedures in the original Item Management Coding Manual and called the Integrated Materiel Management Manual.

Chapter I contains the introductory information that should be general enough in nature to cover all the procedures chapters; however, it appears to be oriented toward the Item Management Coding Procedures to the exclusion of the SSR Procedures. The definitions and acronyms should be combined for all chapters and included in appendices. The policies, responsibilities, procedures and appendices should be portrayed in a standard manner for all procedures chapters.

b. Administration

A standard system for administration and maintenance of the manual should be set up. It appears that the IMM Manual established an Integrated Materiel Management Committee (IMMC) with specific assigned responsibilities to carry out the Item Management Coding Program and to propose, review and publish changes to the manual. But, there is no reference to the responsibilities for the SSR Procedures. As a matter of practice, it appears that the Special Projects Group (SPG) for Provisioning has responsibility for monitoring the SSR Procedures contained in the manual, but the responsibilities are not listed in the manual.

Although the manual provides for numbering of formal and interim changes, the DODSSR Study Team had difficulty in keeping track of proposed and interim changes to the manual. There does not appear to be any numbering system for proposed changes. Changes to the IMC and SSR portions to the manual seem to be accomplished using different methods and organizational elements.

It appears that some SICC's and IMMs are unilaterally making informal changes to the procedures through interpretation and application of data element codes and definitions to apply to problem conditions affecting certain SSR submitters and receivers. Sometimes these exceptions are then applied "across the board" to other activities or Components which have traffic with the activities that are applying a special interpretation.

The other activities or Components are not always aware of the special interpretations or do not agree with them. If the problems are serious enough to require a special interpretation or exception, they should be reported through a formal problem reporting and coordination system through the headquarters level for resolution, staffing, coordination and publication of an interim change if necessary.

It is recommended that a formal system be established for administration and maintenance of the IMM Manual. The responsibility for administration and maintenance of the manual should be clearly spelled out. A formal change, proposal, review, coordination and control process with a standard numbering system for formal, interim and proposed changes should be established. Advance notice of changes should be published to permit systems design and development to be accomplished by a specific coordinated implementation date.

3. SSR Procedures. The changes recommended to the SSR Procedures (DoDM 4140.26) are keyed to the functional requirements statement and conceptual systems chart presented in Chapter IV, Volume I, of this Report and to Chapter 4 and Appendix E of the IMM Manual itself. The recommended changes to the SSR Procedures in the IMM Manual supplement the policy recommendations and changes to the general organization and administration of the IMM Manual that were recommended in Sections C. and D.2. above.

a. General Organization of SSR Procedures. The general authority, purpose, objectives, scope, applicability, responsibilities and administrative statements pertaining to the manual as a whole should be in Chapter 1, with specific references applicable only to SSR processing contained in the beginning part of the SSR chapter. All definitions, acronyms, tables, formats and exhibits should be contained in appendices and appropriately indexed. Current policy and procedures statements in Chapter 4 of the IMM Manual should be revised to eliminate the redundancy between policy and procedures with these policy statements pertaining to SSRs separated from the procedures and listed in the beginning of the chapter. The procedures should be removed from Appendix E and placed in the main body of the SSR Procedures Chapter and merged with the procedures contained there. The appendices should be limited to transaction entry instructions, data elements, codes, tables, formats and exhibits, etc. The intent is to say a thing once, in its proper place, in order to eliminate the extensive redundancy and associated conflicting statements that are inherent in the current procedures. Some of the problems being experienced in SSR processing under the current system are directly attributable to conflicting guidance or interpretation contained in different sections of the procedures.

b. Purpose. A purpose statement should be included in SSRs. The wording contained in Section C.2.b. above is recommended.

c. Definition of SSR. The definition of supply support requests in Chapter 1 of the IMM Manual should be revised in accordance with the recommendation in Section C.2.a. above.

d. Policy. The policy section should be revised to include the policy statements contained in DoDI 5100.63 after the policy recommendations contained in Section C. above have been provided. DoDI 5100.63 should then be cancelled.

e. Scope. The statement of coverage (exclusions and inclusions) specifying what items and what type of requirements are covered should be removed from the policy section and placed in this section. Any exceptions should be specifically stated.

f. Applicability. This section should indicate that the procedures apply to all Department of Defense and Civil Agencies in requesting supply support for consumable items, and that no other procedures or formats are appropriate. It is recommended that the Components apply the procedures within as well as among Components.

g. Procedures. The procedures section should clearly outline the responsibilities, functions and tasks of SSR submitters (SICCs) and receivers (IMMs) associated major events involved in the generation, transmission, processing and controlling of supply support requests. The procedures should be keyed to the logical order of phases and events as shown in the conceptual systems chart in Part 1 of this Chapter. The detailed procedures should be revised after a thorough review of the IMM Manual and the entire DODSSR Study Report. Key change requirements are highlighted below for events that are considered critical for which major problems were experienced. Events that are common to SICCs and IMMs are discussed together here and do not necessarily represent the order of coverage or inclusiveness of coverage that should be included in the SSR Procedures in the IMM Manual.

(1) Generation. Procedures and criteria for generation of supply support requests based upon results of the policy review recommended in Section C. above should be included in this part of the procedures. This part should relate to the coverage of the scope part and should indicate when a request should or should not be generated. Coverage should include initial, change, and delete actions for initial provisioning, reprovisioning, follow-on provisioning, phased provisioning, multiple-year procurements and nonprovisioning in accordance with the policy clarifications from the recommendation in Section C.

(2) Method of Support/Level of Support Determinations. The results of the recommended policy review should be included under this category.

(3) Requirements Forecasting. This category should include the policy clarification on accumulation and roll up of requirements recommended in Section C.

(4) Funding of Requirements. The policy clarification from Section C. should be incorporated into this part.

(5) Technical Data. The requirements for technical data including a clear definition of technical data and when it is required should be provided. The results of the policy review recommendation should be included in this section. Transmission control and monitoring of submission of technical data should be performed in accordance with Section D.3.g.(8) below.

(6) Catalog Data Screening. The failure of SICC's to adequately perform local and DLSC catalog screening, item identification and item classification to obtain NSNs for part numbered items, to pick up standard and replacement NSNs for non-standard and cancelled items is a major cause of a large number of rejects. After completion of the recommended catalog review, the SICC's should develop automated processing and control procedures to screen part numbered and stock numbered items and process the replies prior to submission of SSRs. This should be accomplished within 30 days prior to submission of the request. If this is accomplished, it will reduce the number of rejections currently being experienced because of the failure to pick up an NSN, standard or replacement item, existing IMM manager, or to properly classify a part number item in its assigned class and thus be able to correctly associate it with the appropriate potential IMM. This is an action that can be accomplished under the current system and can significantly reduce the number of rejects. If screening is properly accomplished by the SICC, it would facilitate the screening and item entry control procedures of the IMM. Screening of part numbers or interrogations of stock numbers should still be performed by the IMM. Consideration should be given by the SICC's and IMM's to screening local files particularly for NSN items. If the item matches local files, the SSR could be created and forwarded earlier by the SICC and the IMM could provide advice sooner and initiate updates for DLSC files at the time of the advice decision. Probable and possible matches received by the IMM should be forwarded to Item Entry Control. Pickups of standard, replacement, actual matches and identifications to other IMM's should be processed and not rejected.

(7) Validation

The analysis of the reject rates in the quantitative evaluation and validation analysis indicated that too many requests were being rejected due to validation errors. This is particularly so for NSN items for which a minimum of data elements should be required to process a request for supply support. This is caused by a number of reasons. Some of the SSR transactions are prepared on a manual basis and forwarded without being subject to an automated validation routine. Data elements in provisioning documentation are not always validated prior to entry into provisioning files or prior to preparation of the SSR. The current procedures are subject to interpretation and different sections of the SSR Procedures provide different guidance for entry of data elements in various formats.

The validation programs developed by the Components are based upon different procedures and different criteria for validation of certain data elements or conditions. Internal and external error codes vary among the Components as do the rules for entry of valid and invalid records in suspense and history files. Some of the reject codes in the procedures are too general and do not identify the specific data elements in error and are not conducive to either computer or manual processing. Others are too specific and while they may be conducive to computer processing they are not conducive to manual processing. Some of the reject codes did not experience any usage during the entire eight months data collection period while the frequency for others was so low as to approach zero. There are so many codes it is difficult for the functional processor to remember them. Many of the rejects are caused by package rejects that occur when a data element in the PDSSR header card is in error and all the line item requests are rejected along with the header card. Some of these rejects are for "mandatory" data elements that are not even used by the IMM in making supply support determinations.

This Report recommends a complete revision of the SSR Procedures, transactions and formats. A set of standard validation procedures, criteria and codes should be provided to ensure a common interpretation of the requirements for entry of control and detail data elements. A convention should be established to permit the identification of up to five errors in a reject transaction while reducing the number of reject codes currently being used. A separate transaction with a separate document identifier series should be established to identify validation rejects from action rejects and to identify the specific data elements in error.

The standard validation procedures should be published in the revised SSR Procedures and should be mandatory for both SICCs and IMMs. These procedures should specify the hierarchy, levels, sequence, and edit/validation criteria for

control data elements, detail data elements, error handling, and file recording procedures. The same error codes should be used internally and externally to the validation activity.

Pending the revision of the SSR Procedures and publication of the standard validation procedures, an interim change should be published to provide guidance on ways to relax the validation in the current system to reduce the incidence of occurrence of those few error conditions that are causing the majority of the validation rejects. Data elements that are targeted for deletion in the new procedures should be bypassed in the validation. Data elements that are not critical to processing, such as shelf life code and special material content code should not be rejected but should be edited to the applicable code indicating the absence of the condition, such as the code indicating that the item does not have a shelf life. This does not relieve the SICC of the requirement to ensure that contractors continue to enter indicative data elements such as shelf life in provisioning lists and forward valid data to IMMs in SSRs.

(8) Transmission

The SSR Procedures currently permit SSR advice transactions to be forwarded over AUTODIN. Some SICCs and IMMs use AUTODIN and some are using mail. Under the current procedures mail is the standard mode being used for both SSR transactions and technical data.

The quantitative evaluation and the AUTODIN/TELEFAX Test indicated that significant savings in time could be saved by electrically transmitting both SSR transactions and technical data. Although the TELEFAX system as tested is not considered appropriate as an ongoing system for the transmission of technical data, it did indicate that electrical transmission of technical data is conceptually sound and that potential benefits can be realized if a more appropriate system can be developed. The evaluation did indicate that there were still benefits to be gained by sending all SSR transactions over AUTODIN under the current system accompanied by an item name card for all part numbered items, with technical data to be forwarded by mail. The technical data should be marked with control data and mailed to the IMM as soon as the item is coded for integrated management.

The improvement in control, savings in transmitting, processing and wait time, reductions in the number of followups and resubmissions, and improved audit trail indicate that this alternative should be pursued immediately, with a study to follow to determine the feasibility of electrical transmission of technical data from technical library to technical library. The current procedures should also be modified to establish a convention for the IMM to followup when technical

data is not received. The SICC should establish controls to ensure that technical data is forwarded and the IMM should monitor and measure the incidence of receipt of technical data. Under this concept the SICC should enter the technical data in the technical library as soon as possible. The technical data, preferably in aperture card form, should be marked with control data and mailed as soon as possible. The SICC as the technical manager of the item should retain a copy of the technical data in the technical library and the IMM should be required to return the technical data if supply support for an item is rejected.

The IMM should not reject an item for lack of technical data unless there is insufficient data to identify an item for stock numbering purposes. Copies of reports measuring the performance of SICC's in the submission of technical data should be provided to the SICC's by the IMM's. Summary copies of the technical data management reports should be provided to Component headquarters levels for use in monitoring the performance of activities in acquiring and providing technical data.

h. Transaction Types

Current procedures provide for three basic types of SSR transactions; program data, line item supply support requests and advice. These transaction types are further subdivided into specific transactions through the use of Document Identifier Codes (DICs) and transaction codes called Action Taken Codes (ATCs). There are 70 different ATCs in the manual to identify different types of transactions and/or conditions. Although the advice transactions are subdivided by DIC, the ATC must also be used in conjunction with the DIC to identify the transaction.

Request transactions consist of a package of transactions which is a combination of program data card that is a header for the entire package, a line item request transaction which may contain one or two cards and anywhere from one to three different types of catalog cards. The cards must be related to one another through control data. If the cards are not associated properly a line item package or an entire provisioning package may be rejected.

The study group received complaints about the excessive number of rejects being received. Functional personnel at operating activities complained that there were too many packages, too many different types of cards per packages and too many ATCs. It was felt that some of the ATCs were too general by systems design activities and both too general and too specific by operating activities. Operating activities said that since the ATCs did not have any specific groupings and some of the definitions were vague or conflicting they had a difficult time distinguishing between a validation reject and an action reject. They said they were not sure when an item was accepted, when it was accepted conditionally and when it was rejected.

As discussed in Volumes II and III, the study team reviewed all the transaction types by DIC and ATC and categorized the transactions into basic event types and further subcategorized reject transactions into reject categories to evaluate the performance of the system. Accept and reject rates were computed by category, subcategory and individual DIC and ATC. Times to accomplish different events based on transaction types were derived and time to complete an entire SSR cycle from beginning to end were computed. Transactions were analyzed individually and in relation to other types of transactions.

Transactions are the basic method of communication of events whether it be in a business system or in a logistics system. Through the use of transaction analysis, the study group confirmed the problem that had been reported to the study team. We found that the package system using the program data card as a header, with associated line item packages and catalog cards were causing a large number of the validation errors. We also found that most of the data elements in the program data card were either not used or were too inconsistently entered or not meaningful to be used. The catalog cards usually contained more control data elements to link the cards than detail data elements that were being used. In addition, some of the catalog cards were being used such a small portion of the time that their use at all was questionable.

We found that a small number of transaction codes were involved in a large frequency of cases. Some of the codes either experienced no usage at all during the evaluation period or were so infrequently used as to round to zero. We had difficulty in placing some of the transactions into categories ourselves using the ATCs. We found that after receipt the packages were generally processed on a transaction basis anyway and that most of the header data was not even being used. Transactions that were completed, were sometimes held up for an entire package to be completed.

As a result of this evaluation it was decided that the procedures should be completely revised to better relate transactions to event types and that the package concept should be eliminated to the extent possible and the transaction identification system using DIC and ATC should be completely overhauled. We decided to use a separate document identifier code to identify basic transaction types. The validation reject codes should be abolished entirely and a convention established to identify up to five data element errors using a data element number identification technique. The ATCs for other transactions should also be totally revised to assign new transaction codes called advice codes to further identify the transaction type. The codes should be mnemonic and should be grouped together so that all codes in a group are applied to the same category of

advice transactions such as accept or offer or reject. The number of transaction types and codes should be kept to a minimum and conditions with no occurrence should be eliminated. The specific types of transactions are shown below.

(1) Request Transactions

Currently there are eleven different document identifier codes (DICs) that can be used to request supply support. Separate DICs are used for program and line item requests for CIMM and WIMM items. The data elements in the transactions are almost identical between the CIMM and WIMM transactions. Processing procedures are very similar between CIMM and WIMM. Where there is a difference, the WIMM processing is less restrictive and really considers very few of the data elements in the transactions. These transactions can be easily combined and the number of transaction types for CIMM and WIMM line item requests can be reduced from six to three. We found that many of the request transactions that were being sent to WIMMs contained CIMM document identifier codes anyway that were being processed by the WIMMs just as if the request had contained the proper code.

A separate Type Change Code (TCC) is used to designate both changes to SSRs and to designate provisioning and nonprovisioning SSRs. The use of the provisioning/nonprovisioning distinction in a Type of Change Code is inconsistent. Also there is no necessity to distinguish between provisioning and nonprovisioning SSRs. They should be treated the same. The use of the TCC to designate provisioning and nonprovisioning should be eliminated and the type of change should be designated by the Provisioning Line Item Sequence Number (PLISN).

There are very few data elements in the program data cards that are being used by IMMs. The principal data elements being used are the date that repair parts are required and the code indicating the percent of end items to be deployed east of the Mississippi River. The program data currently being used can be incorporated into the line item request cards and the program data cards can be eliminated at a net savings of two transaction types.

The item name and additional reference number information can be combined into the request transaction. Additional user information is used less than 0.2% of the time. Components are generally sending their own requirements under joint provisioning, since there is no current capability of computing other Service requirements on an automated basis. Additional users could be added through the cataloging change system rather than through the SSR system for such a small percentage of cases. An analysis of our data collection indicates that a large portion of the additional user cards that were being submitted were sent in error.

Currently the IMM is determining an active from an inactive NSN by looking at the presence or absence of certain data elements in NSN request cards. This has caused a large number of rejects when data for an active NSN has been entered because it has been available, but was not needed for an active NSN. It is easier for the automated processing routines to enter data consistently in like transactions whenever possible. The IMM can obtain any additional data needed for an inactive NSN through interrogation of DLSC files. The condition distinction should be eliminated.

The elimination of the CIMM/WIMM distinction, and the distinction between active and inactive NSNs plus the merging of program and catalog data with the basic line item request will reduce the number of transactions from eleven to three requests for integrated materiel managed items; one each for NSN, part number and PSCN items. Perhaps more importantly, each request can be processed as an individual line item, since the basic program package and LISSR package distinction will be eliminated. This will eliminate the large number of package errors that are occurring and speed up processing since valid transactions will not be rejected along with invalid transactions and completed transactions will not be delayed pending the completion of other transactions.

(2) Accept Transactions

The transactions generally classified as line item advice (LIAC) document identifier codes CX1 to CX4 should be placed in specific transaction categories that reflect the events that they represent. These transactions are usually subdivided anyway through the use of action taken codes.

The accept category should contain a number of transactions that are currently classified as rejects or offers today. A separate document identifier code should be assigned to indicate an acceptance of an SSR. This transaction category should include the following four conditions:

(a) Accept of Item Requested. This includes the acceptance of the exact NSN or part number requested. If a new support date is generated it should be provided in the transaction along with the AAC to indicate the method of support. If it was a part number or PSCN that was requested an NSN will be provided in the transaction when available. Pickups of actual or exact matches should be included in this category rather than being rejected.

(b) Accept of Standard/Replaced Item. This category should contain acceptance of standard or replacement items that are picked up by the IMM during catalog/IEC screening. In addition to the new NSN, the transaction should provide the standardization code and phrase code, AAC and may contain a new support date.

(c) Accept of Substitute Items

This category includes NSNs picked up as a result of DLSC Screening or Item Entry Control Review. It includes possible, probable or in-house matches that have been processed through Item Entry Control and for which it has been determined that the reference number requested can be added as a primary reference number. Additional data includes standardization code, phrase code, AAC and may contain a new support date.

This is a conditional acceptance. Support will be provided as indicated in the accept transaction, unless a reply transaction is sent by the SICC indicating nonconcurrency with the substitute item, and verifying that the item requested is required.

(d) Acceptance with Item Identifier Change

Corrections to FSCM and/or manufacturer's reference numbers are included in this category. These include reformatting of part numbers (dashes/slashes/spaces) and correction of FSCMs using DLSC reference tools, correction of part numbers using manufacturer's catalogs and clarification from contractors that are made during Item Entry Control. The AAC, standardization code, NSN, support date and corrected FSCM/Reference Number are included in this transaction.

This is a conditional acceptance. The support will be provided as indicated in the accept transaction unless a reply transaction is sent by the SICC indicating nonconcurrency with the change and providing the corrected data for the item.

This transaction was developed because of the request by some of the SICC's and DLA's concurrence with the request to correct FSCMs and part numbers. The DODSSR Study Team provides this transaction as a convention to accommodate this situation. Although the study team recognizes the incidence of this problem, it is felt that the basic responsibility to provide accurate item identifier information lies with the provisioning activity. The provisioning activity should perform both an automated validation of provisioning data supplied by the contractor, and a manual quality control procedure to validate and verify the accuracy of the entries on the provisioning list. A combination of contractor training and quality control by the provisioning activity is recommended to correct the underlying problem. The DODSSR Study Team has no statistics or other research to render an opinion on the relative capability of an IMM to accurately make changes or corrections to manufacturer's identifying information that is provided to the IMM by a SICC via the SSR.

(3) Offer Transactions. Offer transactions should include offers of part numbered items and offers of stock numbered items where the requested part number can be added only as an advisory reference number to the offered stock number. The offer transaction should include as much information as possible from the DLA Form 546 (Standard/Alternate Item Referral) to permit the offer to be communicated by AUTODIN and to preclude the necessity of matching the transaction sent by AUTODIN with the manual form as is the case today. Offers will require a reply by the SICC for the IMM to continue processing. In lieu, of a rejection for lack of response to an offer, the IMM should followup for the reply to the offer.

(4) Reply Transactions. The reply category should include three types of replies. The reply transaction should be sent from the SICC to the IMM to reply to a conditional accept or offer transaction.

(a) Reply to Accept-Substitute. The SICC should send a reply to the IMM when the SICC does not concur with the substitute item that the IMM intends to support. The reply should be sent within 30 days of the transaction date of the accept transaction and should contain a code indicating that the IMM does not agree with the substitute and requests support on the original item requested.

(b) Reply to Accept-Item Identifier Change. The SICC should send this reply if there is disagreement with the correction to the FSCM/Reference Number by the IMM. The reply should indicate the correct item identifying number for the item for which support is being requested. The reply should be sent within 30 days of the date of the conditional accept transaction.

(c) Reply to Offer. The offer transactions will require a mandatory response indicating acceptance or rejection of the offer. The reply should be sent within 30 days of the date of the offer transaction. The transaction should contain two transaction or advice codes, one to indicate acceptance and one to indicate that the offer is not accepted and that support is requested on the original item.

(5) Followup Transaction. The new followup transaction permits both the SICC and the IMM to followup for information. The four categories of followups are as follows:

(a) Initial Advice. The SICC may send a followup for initial advice 20 days for an NSN request or 35 days for a part number request after the date of transaction of the request. This presumes that the requests are submitted by AUTODIN and that the requests are forwarded immediately after creation

of the request transaction. No wait time is allowed for matching up with technical data, since the technical data should be forwarded separately, and may have already been forwarded prior to the creation of the SSR. A transaction code will indicate that initial advice is being requested. Additional followups may be sent out if a response has not been received within 15 days of the transaction date of the previous followup.

(b) Final Advice/NSN Advice. This followup may be sent out 65 days after the date of the initial request transaction or 35 days after the receipt of initial advice whichever is sooner. The transaction code in the followup will indicate that the followup is for final NSN advice. Additional followups may be sent if a response has not been received within 15 days of the transaction date of the previous followup.

(c) Technical Data. This transaction was created to permit the IMM to followup on the SICC for technical data when the Document Availability Code indicates technical data is available but it has not been provided. Lack of supplementary technical data will not be a cause for rejection of an SSR unless the minimum technical data elements required for stock numbering an item have not been received. The IMM may followup for supplementary technical data if it has not been received within 30 days of the transaction date of the request transaction. The IMM may then followup in 15-day intervals if technical data or a reply indicating technical data cannot be supplied is not received within 15 days of the original followup transaction date.

(d) Offer Reply. The IMM will no longer automatically reject support for failure to receive a reply to an offer within the prescribed timeframes. Instead, the IMM will followup on the SICC for the reply to the offer. The IMM may followup on the SICC after 30 days of the transaction date of the original offer and in 15-day intervals after the first followup.

(6) Response to Followup. The response category should provide for a response to each of the followup categories. The initial response to a followup may provide a status reply indicating that the request or followup transaction is in process and a reply will be forwarded within 15 days or may contain advice that directly responds to the followup and is recorded in the suspense files.

(a) Response to Followup for Initial Advice. If initial advice is not recorded in the suspense file and has not been forwarded, the IMM may send advice indicating that the request is in process and that advice will be provided

within 15 days. If initial advice has been provided, the advice will be provided from the suspense file. If the advice was an accept, a complete accept advice will be sent, if the advice was an offer, complete offer advice will be sent. The same holds true for reject and passing action advice.

(b) Response to Followup for Final/NSN Advice. The response to the final/NSN advice should provide the advice requested if it is in the suspense file. If only initial advice has been provided, the IMM should provide advice indicating that the final/NSN advice is in process and will be provided in 15 days. The initial advice should not be provided unless both initial and final advice were provided at the same time.

(c) Response to Followup for Technical Data. The SICC should forward the technical data within 15 days of the transaction date of the followup. If the technical data is not available the response should indicate that the technical data is not available and can not be provided. If the SICC is in the process of obtaining the technical data, the SICC should provide status indicating that the SICC is in the process of obtaining the technical data and the approximate date when the technical data will be provided.

(d) Response to Followup for Reply to Offer. The SICC should respond to the followup by sending a reply to offer transaction. If the reply is in process, the SICC should send a response providing status indicating that a reply is in process and an approximate date when the reply to offer will be provided.

(7) Passing Action. Currently, when an IMM through DLSC screening or Item Entry Control actions finds that an item has been placed in an FSC for which another activity is the IMM or for which another activity is already recorded and the IMM for the item, the IMM rejects the request back to the SICC. Since the SICC has already made the item management coding determination that the item should be assigned to integrated management, it only delays the processing for an item for it to be rejected back to the SICC to prepare another request to be sent to the correct manager. Requisitions for items are routed to the correct manager with status information provided to the requestor. There does not appear to be any reason why the IMM cannot reroute or pass the original request to the correct IMM with passing information to the requestor so that the requestor can update his suspense files. The SICC should send any followups to the new destination with the followup predicated upon the transaction date of the passing action rather than the transaction date of the original request.

(8) Reject Transactions

Currently all types of rejects are lumped into the same transaction category (CX1 Advice) as accepts, offers, and rejects. It is not always easy to ascertain whether the advice is an accept or whether the advice is a reject. The individual advice code (ATC) and definition must be reviewed to determine if it is a reject and the type of reject.

There are about 57 ATCs that can be used to provide reject advice under the current system. The codes do not indicate whether the reject is a validation reject, support reject or a reject for technical considerations. Some reject codes are too general and do not indicate the specific data element or condition that is in error. Others are very definitive, but occur so infrequently as to question whether they warrant the assignment of a specific code.

In summary, the codes should be grouped to indicate whether the reject is a validation reject or whether it is a condition reject and what the condition is (support, technical match/duplication or other reason). The number of codes can be reduced, yet made more definitive. This can be done by using a separate technique for validation rejects and by categorizing action rejects, merging duplicate conditions and eliminating conditions that do not occur at all or occur extremely infrequently.

(a) Validation Reject. A set of standard validation procedures and criteria should be published in the IMM Manual. The reject codes should permit the identification of up to five errors at a time and the same error codes should be used internally and externally to preclude confusion on the part of functional workers. The validation reject should have a transaction code indicating that it is a validation reject. The specific data elements in error should then be identified using a data element number (DEN) or data record number (DRN). This technique has a precedent in that it is already used by DLSC to communicate validation errors in this fashion to activities that send transactions to DLSC. The transaction code identifies that it is a validation reject and the data element number indicates the data element in error. The definition of the data element and the data element codes are maintained as a part of data elements maintenance.

(b) Technical Reject. This category should contain items that are rejected for technical reasons such as an invalid FSCM that cannot be corrected, invalid part number that cannot be corrected, nondefinitive unit of issue. The first position should identify the particular error condition.

(c) Support Reject. These items are rejected for support because they do not fall within the purview of the IMM and cannot be rerouted to another manager. Included within this category are such conditions as items that should be coded for retention or are in a class of items such as fuels or medical material that do not come under the SSR Procedures.

(d) Match/Duplicate Reject. This category contains items that are rejected because they do not match up to a previous record on the suspense file such as change transactions or the transactions are complete 80-character duplicates or control element duplicates.

(e) Other. Other rejects are those for which no other reject category applies or "in the clear" explanatory information is required to explain the reject condition. A review of the quantitative evaluation and field research indicated that ATC 36, Other, under the current system, was being used in lieu of offers or when other reject codes could have been used. This transaction should be revised to permit the exception data to be entered that is now being provided on the manual Standard/Alternate Item Referral/Reject Notification form. A large field should be provided in addition to certain standard codified information to permit explanatory remarks to be sent over AUTODIN instead of being forwarded by mail which requires the matching up with the transaction that is currently being sent over AUTODIN.

i. Data Elements. Only the data elements that are required for each of the transaction types should be retained. Data elements that are not being used today or not required should be deleted. Data elements that have a marginal utility should be considered for deletion. Additional data elements needed for a particular transaction type should be added.

j. Formats

The formats should be revised to suit the new transaction types after the deletion of unrequired data elements and addition of new required data elements. The data elements should be rearranged into a more logical order. Like data elements such as control data elements, transaction identifier codes, item identifier data elements and catalog and technical data elements should be grouped together in a logical sequence with due consideration for standard conventions for the positioning of particular data elements.

As many formats should be eliminated as possible to simplify the process for requesting and obtaining supply support. The package concept should be eliminated and those data elements absolutely required should be merged into the line item request

transactions. The separate program and catalog data cards should then be deleted to eliminate the package and card combination rejects that are attributable to the extra cards. The goal should be a single card format for each transaction whenever possible. Whenever more than one card is required, the additional cards should be identified using a card number.

k. Controls. Controls should be maintained by both the SICC and IMM to ensure accurate and timely generation, submission and processing of SSR transactions. Control of SSRs should be maintained from the initial generation of the first request for a line item through all subsequent changes or references to the initial or change transactions to the completion of the final action on the same provisioning control code for the same submitting (SICC) activity.

(1) Standard Control Number

The use of a standard control number is the key to proper control of SSR transactions by the SICC and IMM. The standard control number or document number should consist of the control elements such as activity codes, provisioning control code, provisioning line item sequence number, and date of request. The document number should designate the overall control field and should consist of the control elements as subfields grouped together in a logical order to facilitate a common or universal technique for accessing, storing, retrieving, sequencing, processing, controlling and communication of SSR transactions within, between and among systems and activities.

The control number should not be duplicated for the same or different items of supply for the same SICC activity for the same provisioning project (PCC). The PCC and PLISN are the two key subfields in the document number. The PLISN should be used as the serial number portion of the document number because when coupled with the PCC and SICC activity code it provides a unique audit trail for clarifying problems on supply support requests and preventing the creation and processing of duplicate transactions. The use of the unique PCC and PLISN also permits the maintenance of status on an individual item in a provisioning project, the status of provisioning and supply support for the entire provisioning project, and the rollup or accumulation of requirements for the same item of supply.

(2) Package/Transaction Control. Supply support requests should be processed by the IMM on an individual transaction basis (instead of being processed on a package basis). The individual transactions should be matched against SSR suspense/history files to match to related transactions and to prevent duplicates within a provisioning control project (PCC).

A given SSR transaction should not be delayed pending the completion of another SSR in the same provisioning list simply because they were submitted, received together and processed in the same cycle.

(3) Suspense/History File(s)

A suspense/history file should be maintained on all SSR transactions. The SICC should maintain a file of all transactions submitted and received and the IMM should maintain a file of all SSR transactions submitted and received. The file should contain a complete audit trail of all SSR transaction types pertaining to the same control number. This file should be maintained for a period of two years from the completion of the last action for the same activity/PCC combination.

The date of request should be used for control purposes in combination with a date of transaction to relate all subsequent change and advice transactions to the initial request for the same item of supply for the same provisioning project.

This file should be used to match incoming transactions to prevent duplicates, to generate internal and external followups, to provide responses to followups and internal inquiries, to provide listings and reports for operational control of SSR processing and management reports to measure the effectiveness and efficiency of the system.

The file should be used to provide status on an individual line item and should be used to provide complete status of provisioning and supply support on a provisioning project or end item using the PCC and systems designator, respectively.

A record of the number of followups and rejects should be maintained by the SICC and the IMM. After the second followup for the same transaction, a local exception action should be generated for manual review to determine what the problem is and to expedite the final resolution and completion of the individual action. Internal and external followups should be generated for overdue actions based upon the allowed times for completion of individual transactions and generation of followups.

All incoming and outgoing transactions should be generated as a result of file maintenance to this file. That is a transaction should not be transmitted to an internal functional organization or external activity without having been first validated and preposted to this file. Outgoing transactions to external activities should be immediately routed to AUTODIN operations after action.

1. Allowed Times

Although the SSR Procedures contain numerous times for the accomplishment of certain events and times that must have elapsed before other events may take place, these timeframes are interspersed throughout the procedures and tend to become somewhat obscured.

The timeframes for completion of different events and/or generation of other events should be compiled into a table similar to the one in Figure I-96 of Volume III of this Report and placed into one place in the IMM Manual to be used as a ready reference. The table should contain the start and stop dates for measurement of the allowed times.

CHAPTER VI
RECOMMENDATIONS

A. INTRODUCTION

The DODSSR Study was assigned to identify problems associated with the systems for generating, transmitting, processing, controlling and managing Supply Support Requests (SSRs) in order to develop systems and procedures improvements to promote effective and efficient supply support of Department of Defense (DoD) equipments. The original problems reported included:

- : Extended transmission times
- : Delinquent SSRs
- : Excessive Number of Rejects
- : Inadequate Controls
- : Deficient Management Reports

The supply support request management organizations/functions, policies, procedures, systems design and implementation were reviewed and analyzed. A performance evaluation of the system was conducted, using an automated data collection and analysis, and a series of questionnaires and a number of tests. The research and analysis was directed towards determining if the problems existed as originally reported, to ascertain if additional problems existed, and to derive potential solutions to resolve specific problems and to develop overall improvements to policies, procedures and systems for processing SSRs.

The study research confirmed the existence of the problems as reported and attempted to determine the extent, magnitude and causes of the problems. Changes to current systems and procedures were identified that will result in an immediate improvement by concentrating on correcting a small number of conditions that are responsible for a large percentage of the problems. However, this improvement might be transitory in nature unless some radical improvements are made to the policies and procedures upon which SSR systems are designed and implemented.

The SSR Policies and Procedures form the basis of the functional requirements statement used by the Components to design, develop and implement their systems for generating, transmitting, processing and controlling SSRs. The study indicated that there

were problems in all areas studied. Some of the problems are attributable to the system design itself. Others are associated with management organizational/functional differences, while some are caused by the lack of clear policy statements. The SSR Procedures, however, are a primary factor in many of the problems being experienced. Although the procedures provide punched card formats, they appear to be oriented to a manual batch processing user, or a sequential batch process computer system with excessive manual intervention. The procedures need to be restructured and written to accommodate the requirements of the system rather than the system being required to adapt to inadequate procedures.

The objectives of the study were:

- : Decrease transmission and processing time.
- : Reduce reject and delinquency rates.
- : Improve systems for generating, transmitting, processing, controlling and managing supply support requests.

It is concluded that the objectives can be best accomplished through a combination of short-term and long-range improvements to the system in conjunction with a management and policy review of certain critical areas. Accordingly, the recommendations of the Report are grouped into the following categories:

- * Current System Changes
- * System Redesign Requirements
- * Policy Review
- * Management Review

The recommendations are based upon the comparative analysis and conclusions contained in Chapter V. The recommendations are presented in summarized form for ease of staffing, coordination, approval and implementation. Reference is made to the Comparative Analysis in Chapter V, Volume I, for rationale with supporting detail contained in Volumes II and III of the Report.

B. CURRENT SYSTEM CHANGES

The changes to the current system are recommended to correct a small number of conditions that are responsible for a large number of the problems being experienced under the current system. These are considered temporary measures only, designed to relieve the pressure until the system can be redesigned to correct the underlying causes. These changes were recommended to the Components to be implemented pending completion of the DODSSR Study during a special meeting of the Special Projects Group (SPG)

for Provisioning on 3 July 1979. The Components indicated a preference for delaying implementation of the short-range changes until the completion of the study. However, it is understood that the Defense Logistics Agency, under its administrative maintenance responsibilities, has commenced coordination of most of the short-range recommendations. The current system recommendations are still considered valid due to the time required to implement the system redesign recommendations.

B.1. It is recommended that the Service Item Control Centers (SICCs) be directed to initiate immediate action to revise their current systems to accomplish the following actions.

a. Perform timely and quality DLSC screening within 30 days prior to the submission of SSRs.

b. Predicate followups for advice on date of submission rather than on date of request if the date of submission is subsequent to the date of request.

c. Perform a check for duplicate Provisioning Control Code (PCC), Item Serial Number (ISN) and/or Date of Request (DOR) for the same or different items of supply in the same cycle prior to submission.

d. Delay resubmission of a supply support request for 15 days after receipt of a No Record reject to preclude duplicate processing of the same requirement.

e. Provide an Item Name Card for each part number SSR.

f. Perform a more definitive item identification during provisioning and SSR processing to provide more accurate item identification information in SSRs.

B.2. It is recommended that the Integrated Materiel Managers (IMMs) be directed to initiate immediate action to revise their current systems to accommodate the following changes:

a. Modify edit/validation routines to preclude rejection of supply support requests for those data elements that are not critical to processing and accepting a supply support request.

b. Eliminate the distinction between Condition 1 and 2 SSRs, process inactive stock numbers for reactivation or reinstatement and obtain stock numbers for permanent system control numbers.

c. Revise procedures to accommodate more than one SSR for the same Component during the same Item Management Coding (IMC) cycle.

d. Review use of Action Taken Code 36 (Other) to ensure use of existing codes applicable to particular conditions.

e. Obtain a new stock number for reference number justified items for properly coded items.

B.3. It is recommended that the Components be directed to revise their current systems to include the following actions.

a. Ensure that SSR transactions and internal inquiry transactions are processed through automated SSR applications on a daily basis.

b. Ensure that all SSR transactions (provisioning, non-provisioning, changes, advice, offer reply, followup, followup response) are input to automated SSR applications by SICC's for validation and preposting to the SSR suspense file before submission and by IMMs for validation and posting to the SSR suspense file immediately upon receipt.

B.4. It is recommended that the Defense Logistics Agency be directed to publish an Interim Change to the IMM Manual to issue the following revisions.

a. Revise the Action Taken Codes (ATCs) in Appendix E of the IMM Manual to permit the results of provisioning screening and Item Entry Control (IEC) to be used to accept rather than reject support for items under the following conditions.

(1) Support actual and exact matches to stock numbered items.

(2) Support replaced NSN/PSCN items for canceled items.

(3) Support standard NSNs in place of nonstandard items.

b. Revise the Action Taken Codes and associated procedures to require the Integrated Materiel Manager to perform catalog actions for decentralized items as well as all other items for which supply support is accepted.

c. Revise the IMM Manual and Defense Integrated Data System Procedures (DIDS) to change the definition of Acquisition Advice Code (AAC) Z to apply only to numeric stockage objective (NSO) items and to establish a separate new code to apply to insurance items.

d. Revise the SSR Procedures, data elements, codes and formats to delete Quantity per End Item and replace it with the System Designator Code and Military Standard 1552 essentiality codes to provide a convention for conveying and associating item and equipment essentiality information for use in method and level of support determinations.

e. Revise SSR policy and procedures to require the use of AUTODIN for all supply support request transactions with associated technical data marked with SSR control data mailed via priority mail to the IMM immediately after Source, Maintenance and Recoverability (SM&R) and Item Management Coding have been accomplished, and SSR candidates have been identified.

C. SYSTEM REDESIGN REQUIREMENTS

While the current system changes will correct some of the more immediate problems in SSR processing, a complete redesign of the SSR Procedures and Systems is required to provide for long term stability, effectiveness and efficiency in the supply support request system. However, the recommended management and policy improvements must also be accomplished to permit a truly effective system redesign.

C.1. It is recommended that the Defense Logistics Agency be designated Systems Administrator of the IMM Program, and directed to reorganize and merge the Defense Integrated Materiel Management Manual for Consumable Items, Volumes I and II, into one volume as indicated below.

a. The Introductory, Item Assignments, Logistic Reassignment and Financial Operations Chapters for WIMM items in Volume II should be merged with like chapters in Volume I to accompany the joint CIMM/WIMM SSR procedures already contained in Volume I in order to eliminate redundancy, update obsolete material in Volume II and to provide a true procedures manual that implements the policy, objectives and intent of the DoD directive for integrated materiel management. Sections of Volume II that are redundant with procedures contained in other military systems procedures manuals should be eliminated.

b. Chapter I, Introduction, should be revised to provide integrated materiel management policy applicable to both the IMC and SSR programs for all IMM items and the policies, responsibilities, procedures and appendices should be portrayed in a standard manner for all procedures chapters.

C.2. It is recommended that the Defense Logistics Agency be directed as Systems Administrator of the IMM Program, to establish a formal system for administration and maintenance of the IMM Manual to provide the following features.

a. Spell out the responsibility for administration and maintenance of both the IMC and SSR programs.

b. Establish a formal change, proposal, review, coordination and control process with a standard numbering system for formal, interim and proposed changes.

c. Publish advance notice of changes to permit systems design and development to be accomplished by a specific coordinated implementation date.

C.3. It is recommended that a task be assigned to the Defense Logistics Analysis Office to revise the SSR Procedures in accordance with the following guidelines.

a. Revise the general organization of the SSR Procedures as follows:

(1) Policy applicable to SSRs should be separated from procedures and placed in the first part of the SSR Chapter.

(2) The policy clarifications recommended by this Study Report should be included after approval by OASD and the applicable DoD directives have been revised.

(3) The procedures should be removed from Appendix E and placed in the main body of the SSR Chapter and merged with the procedures contained there. The appendices should be limited to transaction entry instructions, data elements, codes, tables, formats and exhibits.

b. The definition, purpose, and applicability sections should be revised in accordance with the policy recommendations of the Study Report after approval by OASD.

c. The detailed procedures section for SSRs should clearly outline the responsibilities, functions and tasks of SSR submitters (SICCs) and receivers (IMMs) associated with the major events involved in the generation, transmission, processing and control of supply support requests.

d. Standard validation procedures, criteria and error codes for internal and external use by both SICCs and IMMs including the provision for accommodating multiple errors in the same transactions should be published as a part of the SSR Procedures.

e. The transaction identification system using document identifier codes (DICs) and action taken codes (ATCs) should be completely revised to better relate transactions to event types and eliminate the package concept for SSR processing.

(1) The document identifier codes for request transactions should be revised to eliminate the CIMM/WIMM designation and provide for requests for IMM items.

(2) The Condition 1, 2, and 3 distinction should be abolished and requests should be identified and processed as requests for NSN, PSCN and Part Number items; PSCN items should be processed immediately for NSNs and nonactive NSNs processed for reactivation or reinstatement.

(3) The distinction between provisioning and non-provisioning items should be eliminated and these items should be given the same processing treatment.

(4) The document identifier codes and action taken codes for advice transactions should be revised to designate the different types of advice transactions as separate identifiable events.

(5) The validation reject codes (ATCs) should be abolished entirely and a convention established to identify up to five data element errors using a data element identification technique.

(6) The action taken codes for nonreject advice transactions should be revised to provide for mnemonic codes that are grouped together by transaction category so that all codes in a group apply to the same type of transaction such as accept, offer or reply transaction.

(7) The number of transaction types and codes should be kept to a minimum and conditions with no or minimal occurrence should be eliminated.

f. Those data elements required for each of the SSR transaction types should be retained; those not being used or not really required should be deleted; those that have a marginal utility should be considered for elimination.

g. The SSR formats should be revised to suit the new transaction types after deletion of unrequired data elements, and elimination of unnecessary formats.

(1) The program data format should be eliminated and the retained data elements from that format should be merged with the line item request cards to permit processing on a transaction vice package basis.

(2) The catalog card formats should be eliminated and retained data elements merged with the line item request cards to minimize the number of cards required.

h. A standard control number should be developed to prevent duplicate transactions and to facilitate a common or universal communications and control technique.

(1) The control number should be called a document number and should consist of the control elements such as the activity code, provisioning control code, serial number and applicable date.

(2) The document number should designate the overall control field with subfields for the individual control elements grouped together in a logical order to facilitate a common or universal technique for accessing, storing, retrieving, sequencing, processing, controlling and communication of SSR transactions within, between and among systems and activities.

(3) The provisioning line item sequence number should be used as the serial number to provide an audit trail for tracing supply support request history and to provide a linkage between supply support request, provisioning, and technical subsystems for clarification of SSR rejections and to relate SSR status with overall provisioning support status.

(4) The same PCC and PLISN should be assigned to only one item of supply by the same SICC for the life of the PCC to preclude duplicates, permit rollup of requirements for the same item for the same equipment and for communication and file control within, between and among systems and activities.

i. A suspense/history file should be maintained by both SICC's and IMM's for all transactions for the same document number for a period of two years from the completion of the last action on a provisioning project (PCC).

(1) The date of request should be used for control and audit trail purposes to relate all subsequent change and advice transactions to the initial request for the same item of supply for the same provisioning project.

(2) A transaction date should be placed in each transaction which should be used for audit trail purposes as well as the basic starting point for measuring times for individual transactions and total supply support request life cycle time. The date of transaction should be the date the transaction was created and forwarded to AUTODIN for transmission.

j. The timeframes for completion of different events and/or generation of other events should be compiled into a table and put into one place in the IMM Manual to be used as a ready reference. The table should contain start and stop dates for measurement of allowed times.

C.4. It is recommended that the Military Services and Defense Agencies be directed to include the following systems design concepts during the system redesign required by the revised SSR procedures.

a. The system redesign should provide the following processing concepts.

(1) SICC's ensure that all data elements input to the SSR process regardless of origination have been properly validated for format and content.

(2) Automate SSR processing to the fullest extent and particularly in the major events of validation, catalog data screening, file maintenance, SSR transaction generation, and catalog actions.

(3) Input all types of SSR transactions to the automated SSR application for processing and preposting to the SSR suspense/history file prior to submission by SICC's and for automated processing immediately upon receipt by IMMS.

(4) Process all SSR transactions and other inputs to automated SSR applications on a daily basis.

(5) Whenever possible, group program modules which logically follow one another in processing into job streams.

b. The system redesign should provide the following file maintenance concept.

(1) Adopt the use of skeleton file maintenance transactions when manual action is required to provide a response to the internal system and to generate the appropriate SSR transaction for external transmission.

(2) Provide for local inquiries to the automated SSR suspense/history file on an item, PCC and weapons system/end item basis which result in a complete audit trail of actions accomplished on an item basis and provide for availability of the results to the functional user within 24 hours of submittal.

c. The system redesign should provide the following control concepts.

(1) Ensure all Component activities use the same data elements for control and sequencing.

(2) Ensure all Component activities process SSR transactions in the same sequence.

(3) Provide for both external and internal functional followups when processing actions are overdue, when a followup is received from an external source and when manual processing is required on an exception basis.

d. The system redesign should provide the following SSR suspense/history file concepts.

(1) Ensure that a single automated file is adopted as the suspense/history file.

(2) This single automated file should be sequenced the same as the processing sequence and the same by all Component activities.

(3) Eliminate manual files which contain information which duplicates that resident in the automated SSR suspense/history file.

D. POLICY REVIEW

During the course of the study a number of problems were noticed that required the establishment or clarification of policy. In some circumstances, the problem area was outside the scope of the DODSSR Study, so research was limited to learning enough about the problem to permit a sufficient identification and description of the problem to recommend policy review. In other cases, the area was sufficiently related to the areas under study that the study group not only identified and described the problem, but was able to recommend a policy definition, clarification or recommendation.

D.1. It is recommended that the OASD(MRA&L) clarify the definition, purpose, intent, usage and applicability of supply support requests by adopting the following provisions.

a. Redefine the definition of supply support request as "A request submitted by a SICC to an IMM to obtain integrated materiel management support for new or existing consumable items of supply."

b. Retain the current definition of Integrated Materiel Management as defined in the DoD directive on Integrated Materiel Management as "The exercise of total Department of Defense or Federal Government management responsibility for a Federal Supply Group/Federal Supply Class (FSG/FSC), commodity or item by a single agency" and use in conjunction with the proposed definition of a supply support request.

c. Describe the purpose of a supply support request as a request for integrated materiel management support from an IMM including the accomplishment of the following actions.

(1) Item Management Coding. The SSR acts as an IMC card when the submitting Component has not previously coded the item for integrated materiel management. The IMM is charged with the responsibility of acting as the Item Management Classification Agent and providing cataloging and supply support for items under the cognizance of the IMM.

(2) Registration of User Interest. The SSR is used to request the addition of an activity as a user of an item when that activity has not been previously recorded in the records of the IMM and DLSC, and for which support has not been previously provided.

(3) Request for Supply Support. The requesting activity provides a forecast of retail and replenishment quantities to support its requirements for the support item being requested to the IMM to determine the method and level of support to be provided. Method of support includes the method of management by the IMM such as centrally stocked, or centrally procured but not stocked; and level of support includes the quantity of materiel to be procured and/or stocked to support the supply support request.

(4) Cataloging Support. The SSR provides management and technical data to be used by the IMM to perform item identification, item entry control, stock number assignment, and catalog update and publication.

d. Designate the supply support request as the vehicle to be used as the method of requesting supply support for consumable items whenever there is any predictable requirement. If the expected demand is sporadic in nature or there is no predicted demand, the IMC transaction may be used for existing active NSN items if the SICC desires only to accomplish the cataloging actions of recording the IMC and the user interest of the SICC Component.

e. Make the Supply Support Request Procedures mandatory for all DoD and civil agencies in requesting supply support for consumable items with no other procedures permitted.

D.2. It is recommended that OASD(MRA&L) review and clarify the policies, procedures and criteria contained in DoD directives for the generation of SSRs for the following conditions.

a. Initial requests for new and existing items.

b. Subsequent submission of SSRs as initial or change transactions to cover the following circumstances.

(1) Equipment design changes.

(2) Follow-on provisioning of the same equipment from the same contractor under a different contract.

(3) Reprovisioning of the same equipment from a different contractor under a different contract.

(4) Phased provisioning of the same equipment from the same contractor under a formal program.

(5) Requirements for the same equipment from the same contractor under the same contract with equipment deliveries spread across multiple years.

c. Nonprovisioning requirements.

D.3. It is recommended that OASD(MRA&L) clarify the role of the SICC and IMM in determining the method of support and level of support in terms of the following issues.

a. Should the SICC include a method of support in the SSR using the Acquisition Advice Code or some other code, and does this constitute a recommendation or a mandatory requirement to the IMM?

b. Should the SICC include an identification of insurance or numeric stockage items in the SSR and does this constitute a recommendation or a mandatory requirement to the IMM?

c. Does the SICC or IMM have the responsibility of identifying item essentiality, should it be related to equipment essentiality and how should essentiality be applied in making method of support/level of support determinations?

d. What quantity should be entered into the replenishment quantity field, how should it be used and who should fund the requirement?

e. What quantity should be entered into the retail quantity field, how should it be used and who should fund the requirement?

D.4. It is recommended that OASD(MRA&L) establish a policy indicating the responsibilities of the SICC and the IMM on the rollup and accumulation of quantities for supply support requests for the same item in the same equipment, system, or PCC for the same activity and for different activities.

D.5. It is recommended that OASD(MRA&L) initiate a policy review for technical data; the definition and purpose of technical data should be reviewed and requirements should be established for its acquisition, use and retention for the following categories of usage.

- a. Selection of maintenance significant items.
- b. Item entry control.
- c. Catalog identification.
- d. Purchase description.

D.6. It is recommended that OASD(MRA&L) define the supply support request cycle including start, completion and time of transfer and acceptance of supply support by the IMM, by adopting the following proposal.

The supply support request cycle commences after maintenance significant items are selected and coded for integrated materiel management and it is complete after final accept advice including an NSN for part numbered items is received, and support responsibilities are transferred to and assumed by the IMM at that time. If a stock number is not received for a part numbered item within the allowed time, the SICC may followup if an initial accept has been received and may submit part numbered requisitions in order to receive materiel by the operational need date if no response to the followup is received in 15 days or if the response does not contain a stock number.

D.7. It is recommended that OASD(MRA&L) establish as a matter of policy that all supply support requests should be submitted via AUTODIN. Technical data for part numbered items should be marked with control data and sent by priority mail as soon as SSR candidates are selected.

E. MANAGEMENT REVIEW

The supply support request process is only as good as the management organizations, systems and procedures that are developed to request and provide supply support. Although this report recommends changes to improve the supply support request processing system itself, it is felt that a review and improvement is needed for management processes that precede and are involved in the design of systems, and the operational systems that acquire

and provide the data that identify items of supply and is entered into supply support requests and used by integrated materiel managers to make supply support decisions and provide supply support.

E.1. It is recommended that the Military Services and Defense Agencies be directed to review the organizational/functional assignments at their headquarters, systems design and operating activities in order to ensure the proper placement of functions related to the design, development and implementation of effective and efficient supply support request processing systems.

E.2. It is recommended that the Military Services and Defense Agencies be directed to review their provisioning processing operations to ensure that data required for entry into SSRs is specified in the contract data requirements and that provisioning documentation is validated and verified to ensure that the data is correctly entered prior to accepting the provisioning documentation and preparing and submitting supply support requests.

E.3. It is recommended that the Military Services and Defense Agencies be directed to review their automated and manual screening processes to ensure timely and quality local and DLSC screening of items to ensure proper identification and classification of items prior to preparation and submission of supply support requests.

E.4. It is recommended that the Military Services and Defense Agencies be directed to review their Provisioning Performance Schedules to ensure identification of IMM items and preparation and submission of SSRs sufficiently in advance of the production leadtime and the date repair parts are required in order to allow enough time for the accomplishment of IMM actions.

E.5. It is recommended that the Defense Logistics Agency, as Systems Administrator of the IMM Program, be directed to establish a performance evaluation system in conjunction with the Components including performance elements and measurement criteria, standards, goals, performance objectives and management reports required to measure the effectiveness and efficiency of the SSR System in accordance with the following guidelines.

a. The current timeframes in the IMM Manual should be revised to provide for more realistic times based upon the use of AUTODIN, elimination of the package concept for processing use of automated processing, use of direct communication from data processing to AUTODIN processing and restricting manual processing to a minimum.

b. Allowed times should be provided for the following activities/events:

- (1) AUTODIN Transmission
- (2) Initial Advice
- (3) Final/NSN Advice
- (4) Offers
- (5) Replies
- (6) Followups
- (7) Responses
- (8) Resubmission of Rejects
- (9) Request Cancellation
- (10) Technical Data Submission
- (11) NSN Assignment
- (12) Provisioning Screening
- (13) SSR Generation

c. Goals and performance objectives should be established for the completion of critical events, to measure accept/reject rates and the submission of technical data.

d. The performance measurement system should include measurement criteria and management reports to measure the effectiveness and efficiency of the SSR system including the following provisions.

(1) Reject rates should be measured by reject subcategory and total for all rejects by SICC and IMM. The report should be accumulated by month or quarter and the rates projected to show trends.

(2) Reject rates should be developed for individual reject code and ranked in order of frequency and reviewed to determine whether the causes of rejects are attributable to activities, systems or procedures problems.

(3) A technical data report should show the instances where technical data was required, available, submitted and received. The report should show activity and system totals.

(4) Statistics should be generated on the rates of followups and responses by activity and system total.

(5) Statistics should be generated on the reject/resubmission rates by activity and system total.

(6) Processing time statistics should be produced to measure the time to accomplish events in accordance with the allowed processing times.

E.6. It is recommended that a comprehensive study be initiated to determine the feasibility of scanning technical data at any given geographic location, converting the graphic data to an electrical or electronic signal and transmitting the signal to another geographic location to be converted to an image or facsimile of the input document of sufficient quality to be used for technical operations functions and retention in the technical data library repository.

APPENDIX A



MANPOWER,
RESERVE AFFAIRS
AND LOGISTICS

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

Aug 17 1977

MEMORANDUM FOR THE ASSISTANT SECRETARY OF THE ARMY (IL&FM)
ASSISTANT SECRETARY OF THE NAVY (MRA&L)
ASSISTANT SECRETARY OF THE AIR FORCE (RD&L)
DIRECTOR, DEFENSE LOGISTICS AGENCY

SUBJECT: Establishment of Supply Support Request (SSR) Study

Standard procedures for obtaining supply support for end items of materiel from Integrated Materiel Managers (IMMs) are scheduled to be published as Chapter 4 of Volume I of the Defense Integrated Materiel Management Manual for Consumable Items effective 1 April 1978. These procedures have been coordinated and approved by the Military Services and Defense Agencies.

Subsequent to coordination of the new procedures, potential problem areas in the processing of Supply Support Requests (SSRs), which could have an adverse effect upon supply support of new systems, have surfaced during meetings of the DoD Special Projects Group (SPG) for Provisioning. Examples of problems identified include extended transmission times, a high rate of rejects and the lack of a management control system to monitor and control the overall SSR process. These problems should be reviewed to identify and determine any immediate corrective actions that can be initiated before implementation of the draft procedures. In addition, an overall review of the SSR system is required to identify other recommended changes which would improve its overall effectiveness.

The Director, Defense Logistics Agency is requested, therefore, to task the Defense Logistics Analysis Office (DLAO) to conduct a review and analysis of current and proposed systems for the implementation of the draft SSR procedures. This study should identify operational problems requiring changes to SSR procedures prior to the scheduled implementation date and develop system improvements to promote effective and efficient supply support.

Your cooperation and your support of the DLAO study effort are requested in order to achieve the objectives of the study as outlined in the enclosed study requirement.

Enclosure
As Stated

/s/ Paul H. Riley
/t/ PAUL H. RILEY
Deputy Assistant Secretary of Defense
(Suppl., Maintenance & Services)

STUDY REQUIREMENT

I. TITLE

Supply Support Request (SSR) Systems and Procedures

II. STUDY SPONSOR

The Assistant Secretary of Defense, Manpower, Reserve Affairs and Logistics - ASD(MRA&L)

III. STUDY AGENCY

Defense Logistics Agency, Defense Logistics Analysis Office

IV. AUTHORITY

This study is assigned in accordance with Reference A below.

V. REFERENCES

A. DoDD 5010.22, Subject: The Management and Conduct of Studies and Analyses

B. DoDD 4140.40, Subject: Basic Objectives and Policies on Provisioning of End Items of Materiel

C. DoDI 5100.63, Subject: Provisioning Relationships Between the Military Services/Defense Agencies and Commodity Integrated Materiel Managers

D. DLAR 4140.35, AR 710-25, AFR 67-40, NAVSUPINST 4423.10B, MCO 4423.9B, Subject: Military Services/Defense Agencies - Commodity Integrated Materiel Managers Provisioning Responsibilities

E. DLAR 4130.12, AR 708-7, AFR 67-98, NAVSUPINST 4440.129C, MCO 4410.12C, DNAI 4130.4, NSA/CSS REG. 60-25, Subject: Procedures for Use When Requesting Supply Support and Catalog Action; Excluding the Provisioning Process

F. DoD 4140.26M, Subject: Defense Integrated Materiel Management Manual for Consumable Items, Volume I, Commodity Oriented Items

G. DoD 4140.26M, Subject: Defense Integrated Materiel Management Manual for Consumable Items, Volume II, Weapons System Oriented Items

Appendix A, page 2

H. Item Logistics Management Data (ILMD) Study Report of February 1973

I. Draft DoD 4140.26M, Volume I, Chapter 4, Subject: Supply Support Requests

VI. BACKGROUND

Policy for provisioning end items of materiel is contained in Reference B. Procedures for obtaining supply support from Integrated Materiel Managers (IMMs), implementing Reference B Policy, are contained in References C-G.

The ILMD Study (Reference H) concluded in part that there were multiple regulatory procedures, formats and data elements that have an adverse effect upon Inventory Control Point (ICP) supply support operations, and recommended that the procedures contained in References D-G governing supply support requests (SSRs) be combined into one DoD manual. These procedures have now been revised and consolidated and are contained in Reference I, which has been coordinated and approved for implementation by the Military Services and Defense Agencies through the DoD Special Projects Group (SPG) for provisioning with a scheduled implementation date of 1 April 1978.

However, subsequent to the coordination of the new procedures, potential problem areas in the processing of SSRs which could have an adverse effect upon supply support of new systems have surfaced during meetings of the SPG. Problems have been identified in the areas of SSR transmission times, excessive reject rates which delay vital supply support and the lack of an effective management control system to effectively monitor and control the overall SSR process. These problems should be reviewed to identify and recommend any immediate corrective actions that can be initiated prior to the implementation of the draft procedures. A further review should be made of the entire DoD SSR system to identify any long range improvements that may be necessary.

VII. STUDY DESCRIPTION

A. PROBLEM

SSRs are not being processed in a timely manner which is necessary to ensure effective and efficient supply support of end items of materiel.

Appendix A, page 3

B. PURPOSE

The study is being conducted to review and analyze the SSR processing system. The study will identify problems associated with the systems used to generate, transmit, process and control SSRs and recommend both short and long range improvements to increase the effectiveness of the system.

C. OBJECTIVES

Improvements sought are:

1. Decrease in supply support transmission and processing times.
2. Reduction in the SSR rejection and delinquency rates.
3. Improved SSR and interfacing systems for transmitting, processing and controlling SSRs.

D. SCOPE

The study will review and analyze the SSR pipeline from generation through completion of processing of SSRs.

1. Systems Types

a. Generating. Only SSRs and related output from provisioning or other generating systems will be considered. Excluded are the decision processes for determining what items will require support (range and depth), who will provide the required support and when the required support is to be provided. Consumable items only will be considered.

b. Transmittal/Communication - mode, media, and timing.

c. Processing - receipt, validation, acceptance, offer and rejection.

d. Control - history, advice, status, followup and management control.

2. Systems Considerations

Procedures, inputs, outputs, files, formats, media, content, data elements, codes, definitions, timing and techniques related to the systems/subsystems described above, or to interfacing systems.

Appendix A, page 4

3. Organizations

All DoD and Federal Components involved in the procedures contained in Reference I or systems types described above.

4. Definition

Supply Support Requests for the purpose of this study will include all data/information required to request and obtain supply support for end items of equipment whether through provisioning or nonprovisioning processes.

E. APPROACH

The study will consist of two main phases.

1. Short Range

This phase will consist of a review of current and proposed efforts to implement the procedures contained in Reference I. The primary objective will be to identify those changes that must be accomplished to permit a working implementation of the draft procedures by the scheduled implementation date of 1 April 1978.

This Phase 1 will also serve as the background review or foundation for the accomplishment of Phase 2.

2. Long Range

This phase will be oriented towards generating system improvements in the transmittal, processing, and control of SSRs in order to achieve objectives 1 to 3 above and to promote effective and efficient supply support of end items of materiel.

F. ASSUMPTION

There will be a single DoD Manual with one set of formats, document identifiers, procedures and codes for the interchange and processing of supply support data.

VIII. RESPONSIBILITIES

A. ASD(MRA&L)

ASD(MRA&L)SD is the primary study sponsor and is responsible for:

Appendix A, page 5

1. Study definition and scope.
2. Establishment of objectives.
3. Study assignment and tasking.
4. Monitoring study progress.
5. Receipt, coordination and implementation of study results.

B. DEFENSE LOGISTICS ANALYSIS OFFICE

The DLAO is responsible for the conduct of the study including:

1. Determining, requesting, obtaining or supplying resources to perform the study.
2. Development and application of study methodology including identifying, collecting, obtaining or developing data/information and techniques to analyze systems and evaluate alternatives for accomplishment of study objectives.
3. The study group is authorized direct contact with the military departments and defense agencies during the conduct of the study.

C. THE MILITARY DEPARTMENTS AND THE DEFENSE AGENCIES

The military departments and the defense agencies are:

1. Responsible for participating in the study by providing briefings, data, information, documents and arranging for visits and representation as required by the study group for completion of the study.
2. Responsible for designating a point of contact to facilitate the conduct of the study. The point of contact should be provided directly to the study agency to the attention of the DLAO study team director within two weeks after the receipt of this study requirement. The SPG for provisioning member should be assigned as point of contact.

IX. ADMINISTRATION

A. STAFFING

1. Study Manager

The OSD Project Officer for this study is LTC Larry N. Wellman, OASD(MRA&L) SR.

Appendix A, page 6

2. Study Team Director

To be designated by DLAO.

3. Members

The study group will be composed of highly qualified personnel with the skills as outlined below. DoD components may be tasked individually to provide representation to fill one or more of these staffing requirements.

<u>DoD Component</u>	<u>Experience</u>	<u>Number</u>
DLA	Computer Systems Analyst	1
DLAO	Logistics Systems Analyst	2
DLA/DLAO	Economic Analysis Analyst	1

4. Contact Points

Each of the military departments and the Defense Logistics Agency will assign a single point of contact to coordinate study group requirements for briefings, data, information, documents, visits and service/agency participation in the study effort.

B. SCHEDULE

1. Short Range - 31 December 1977
2. Long Range - 30 September 1978

C. DATA COLLECTION

The study group is authorized to collect data/information as required for the accomplishment of this project. Data may be collected during on-site field research or as a part of a formal data collection. Data may be collected from existing documentation or files and may be manually or mechanically collected. Each DoD Component will perform in a timely manner the manual/mechanical processing involved in a formal data collection and fund any costs involved in the collection and submission of required data.

D. OTHER ADMINISTRATIVE SUPPORT

1. Administrative support for this study will be provided by the Director, Defense Logistics Agency (DLA).

Appendix A, page 7

2. Travel will be funded by the parent DoD Component for each member/representative and blanket travel orders with appropriate fund citations are requested for each member to facilitate travel request processing and payment by DLA.

3. The Study Team is authorized direct correspondence with DoD Components, other Government Agencies, private industry, and educational and industrial associations to arrange field visits, briefings and coordinate data requests and other pertinent documents related to the accomplishment of this study.

APPENDIX B

ACTIVITIES VISITED OR CONSULTED

LOGISTICS HEADQUARTERS

Army

Deputy Chief of Staff for Logistics, Washington, D.C.
U.S. Army Development and Readiness Command, Alexandria,
Virginia

Navy

Naval Supply Systems Command, Washington, D.C.

Air Force

Deputy Chief of Staff for Logistics and Engineering,
Washington, D.C.
Air Force Logistics Command, Dayton, Ohio

Marine Corps, Headquarters, Washington, D.C.

United States Coast Guard, Headquarters, Washington, D.C.

Defense Logistics Agency, Headquarters, Alexandria, Virginia

General Services Administration, Federal Supply Service,
Washington, D.C.

LOGISTICS SERVICE

Army

Catalog Data Activity, New Cumberland, Pennsylvania

Air Force

Cataloging and Standardization Office, Battle Creek,
Michigan

Defense Logistics Agency

Defense Logistics Services Center, Battle Creek,
Michigan

SYSTEMS DESIGN

Army

Automated Logistics Management Systems Activity,
St. Louis, Missouri

Navy

Fleet Material Support Office, Mechanicsburg, Pennsylvania

Air Force

Comptroller, Headquarters 2852d Air Base Group,
McClellan Air Force Base, California
Comptroller, Headquarters 284th Air Base Group, Hill
Air Force Base, Utah

Marine Corps

Marine Corps Support Base Atlantic, Albany, Georgia

Defense Logistics Agency

Systems Automation Center, Columbus, Ohio

General Services Administration, Federal Supply Service,
Washington, D.C.

OPERATING (SICC/CIMM/WIMM)

Army

U.S. Army Tank-Automotive Materiel Readiness Command,
Warren, Michigan
U.S. Army Troop Support and Aviation Materiel Readiness
Command, St. Louis, Missouri

Navy

Ships Parts Control Center, Mechanicsburg, Pennsylvania

Air Force

Sacramento Air Logistics Center, Sacramento, California
Ogden Air Logistics Center, Ogden, Utah

Marine Corps

Marine Corps Logistics Support Base Atlantic, Albany,
Georgia

Defense Logistics Agency

Defense Construction Supply Center, Columbus, Ohio
Defense Electronics Supply Center, Dayton, Ohio
Defense General Supply Center, Richmond, Virginia

General Services Administration, Federal Supply Service,
Washington, D.C.

ADMINISTRATIVE AND TECHNICAL SUPPORT

Defense Logistics Agency Administrative Support Center,
Alexandria, Virginia
Acquisition Logistics Division, Air Force Logistics
Command, Dayton, Ohio
Alden Electronic and Impulse Recording Equipment Company,
Westborough, Massachusetts
Computer Sciences Corporation, Rosslyn, Virginia

APPENDIX C
BIBLIOGRAPHY

- AFLCR 67-8, 29 September 1978, Supply Support Request.
- AFLC Regulation 70-11, 30 September 1977, Acquisition and Due-In System (ADIS) (JO41).
- AFLCR 70-11, Appendix 1, 14 October 1977, ADIS Materiel Management Procedures.
- AFLCR 171-121, 8 April 1977, Automatic Data Processing Systems and Procedures, Autodin and On-Base Data Transmission Interface with Data Processing Systems (MO24B).
- AFLCR 171-53, 1 June 1977, Automatic Data Processing Systems and Procedures, ALC DIDS Receipt, Edit, and Routing System (DI43C) Computer Operations Manual - CDC CYBER 73.
- AFLCR 171-44, 3 April 1978, Automatic Data Processing Systems and Procedures, Supply Support Request (SSR)/Advice - Consumable Items System (DI69).
- AFLCR 400-21/DARCOMR 700-99/NAVMATINST 479023A/MCO P 0,22A, Elimination of Duplication in the Management and Logistics Support of Multiused Nonconsumable Items, 30 March 1978.
- AFLC Letter, 11 May 1978, Subject: Supply Support Request Advice - Consumable Items, DPD ACD-Q78-026 (DI69).
- AFLC Letter, 6 April 1978, Subject: Key-to-Disk Procedures for AFLC Data Processing Systems, DPD LOG-ACD-177-079-004.
- AFLC Provisioning System D220 Users Manual (Draft), 16 February 1979.
- AFR 300-15 (Draft), Automated Data System Project Management.
- ALM-53-B123RB(Z), CCSS by ALMSA, March 1977.
- ALMSA Regulation 18-5, Army Information & Data Systems ADP Methods and Standards - Documenting a Data Processing Procedure, 27 January 1969.
- ALMSA Regulation 10-1, Organization, Mission, and Functions of ALMSA, March 1976.

Appendix C, page 1

AMCP-700-4, NAVMAT-P-4000-1, AFLCM/AFSCM 400-4, Standard Integrated Support Management System (SISMS), March 18, 1969.

AR 700-81/OPNAVINST 4410.2/AFR 66-45/MCO 4400.120/DLAR 4100.6, Joint Regulation Governing the Use and Application of Uniform Source, Maintenance and Recoverability Codes, 22 June 1971.

AR 708-1, Cataloging and Supply Management Data, 1 April 1971.

ASD(MRA&L)SM&S Memorandum, Establishment of Supply Support Request (SSR) Study, August 17, 1977.

Base Order P5450.2, 25 July 1977, Subject: Organization Manual for the Marine Corps Logistics Support Base, Atlantic, Albany, Georgia.

CCSSOI 18-1-25, Volume 1, Commodity Command Standard System Operating Instructions (Guidance), Reference Number and National Stock Number Master Data Record File and Report Guide, May 1978.

CCSSOI 18-1-25, Volume 2, Commodity Command Standard System Operating Instructions (Guidance), Reference Number and National Stock Number Master Data Record File and Report Guide, May 1978.

CCSSOI 18-1-50, Commodity Command Standard System Operating Instructions (Guidance), Supply Support Request Suspense File Guide, October 1978.

CCSSOI 18-1-53, Commodity Command Standard System Operating Instructions (Guidance), Major Organizational Entity Rules File Guide, May 1978.

CCSSOI 18-1-59, Commodity Command Standard System Operating Instructions (Guidance), Federal Supply Classification Table File, File Guide, May 1978.

CCSSOI 18-1-40, Commodity Command Standard System Operating Instructions (Guidance), Provisioning Cross Reference and Master Record/Deleted Contract History File Guide, March 1977.

CCSSOI 18-313, Volume 1, Commodity Command Standard System Operating Instructions (Guidance), Inventory Management Processing Codes, October 1978.

CCSSOI 18-320, Volume 10, Commodity Command Standard System Operating Instructions (Guidance), Programmer's Handbook Standard Reject Control System, January 1978.

CCSSOI 18-401, Commodity Command Standard System Operating Instructions (Application), Application Overview, October 1978.

CCSSOI 18-403, Commodity Command Standard System Operating Instructions (Application), Hardcore Entry and Routing Technique, May 1978.

CCSSOI 18-426, Commodity Command Standard System Operating Instructions (Application), Supply Support Requests Provisioning Program Data, October 1978.

CCSSOI 18-430, Commodity Command Standard System Operating Instructions (Application), End Item Parameter File Update, March 1977.

CCSSOI 18-434, Commodity Command Standard System Operating Instructions (Application), Standard Reject Control System January 1978.

CCSSOI 18-453, Commodity Command Standard System Operating Instructions (Application), Provisioning Edit and Validation, February 1978.

CCSSOI 18-461, Commodity Command Standard System Operating Instructions (Application), Provisioning Master Data Record File Review, March 1978.

CCSSOI 18-468, Commodity Command Standard System Operating Instructions (Application), Autodin Dispatcher, October 1976.

CCSSOI 18-472, Commodity Command Standard System Operating Instructions (Application), Automated Requirements Computation System - Initial Provisioning, January 1978.

CCSSOI 18-494, Commodity Command Standard System Operating Instructions (Application), Provisioning RPSTL (Draft), February 1978.

CCSSOI 18-495, Commodity Command Standard System Operating Instructions (Application), Provisioning PRSTL (Proof), March 1978.

CCSSOI 18-496, Commodity Command Standard System Operating Instructions (Application), Provisioning Retrieval, March 1978.

CCSSOI 18-536, Commodity Command Standard System Operating Instructions (Application), Provisioning File Maintenance, February 1978.

CCSSOI 18-537, Commodity Command Standard System Operating Instructions (Application), Provisioning Deleted Contract History Retrieval, March 1978.

CCSSOI 18-555, Commodity Command Standard System Operating Instructions (Application), PRESCU Daily Trans. Roll Up, January 1978.

CCSSOI 18-591, Commodity Command Standard System Operating Instructions (Application), Provisioning Update, July 1978.

CCSSOI 18-599, Commodity Command Standard System Operating Instructions (Application), Provisioning Reference File Build, March 1978.

CCSSOI 18-617, Commodity Command Standard System Operating Instructions (Application), Provisioning Screening, May 1978.

CCSSOI 18-618, Commodity Command Standard System Operating Instructions (Application), Provisioning DIC Append, March 1978.

CCSSOI 18-664, Commodity Command Standard System Operating Instructions (Application), Federal Supply Class File Maintenance, May 1978.

CCSSOI 18-665, Commodity Command Standard System Operating Instructions (Functional), Major Organizational Entity File Maintenance, May 1978.

CCSSOI 18-700-100, Volume 1, Commodity Command Standard System Operating Instructions (Functional), Packaging, October 1978.

CCSSOI 18-700-100, Volume 2, Commodity Command Standard System Operating Instructions (Functional), Army Master Data File Broadcast, May 1978.

CCSSOI 18-700-100, Volume 5, Commodity Command Standard System Operating Instructions (Functional), Technical/Maintenance Type Data, January 1978.

CCSSOI 18-700-103, Volume 1, Commodity Command Standard System Operating Instructions (Functional), Provisioning System, March 1978.

CCSSOI 18-700-103, Volume 2, Commodity Command Standard System Operating Instructions (Functional), Automated Requirements Computation System Initial Provisioning, March 1977.

CCSSOI 18-708-100, Volume 2, Commodity Command Standard System Operating Instructions (Functional), DLSC Inputs/Outputs, May 1978.

CCSSOI 18-708-101, Volume 1, Commodity Command Standard System Operating Instructions (Functional), NSNMDR Keyed Inquiry System, January 1978.

CCSSOI 18-710-100, Volume 2, Commodity Command Standard System System Operating Instructions (Functional), Supply Support Requests, October 1978.

CDA-R 10-1, Organization and Functions - Mission and Major Functions of the USA DARCOM Catalog Data Activity, September 1977.

D220 Provisioning System Computer Operations Manual (Draft), 12 July 1978.

DARCOM-R 10-2, Organization and Functions - Headquarters, DARCOM, Organization, Mission, and Functions Manual, April 1976.

DESC-S Staff Memorandum No. 4130.12, 14 January 1976, Preparation of DLA Form 1253.

DESC-S Staff Memorandum No. 4140.7, 7 November 1974, Preparation and Processing of DLA Form 546.

Detail System Design Specification for the Logistics Data Management (LMD) System, May 1978.

DIVO P3120.1, 15 February 1978, Subject: Technical Operations Division Standard Operating Procedures.

DLAH 4730.1, May 1978, Information Processing Standards Handbook, Volume III, DLA ADS Life Cycle Management (LCM) Specifications.

DLAM 4745.2, May 1978, SAMMS Documentation Manual.

DLAM 4140.2, January 1969, Supply Operations Manual, Volume II, Defense Supply Center Supply Operating Procedures.

DLAM 4130.3, Volume II, SAMMS Technical Operations Procedures Manual.

DLAR 4140.35, Military Services - Defense Logistics Agency Provisioning Responsibilities, March 18, 1969.

Appendix C, page 5

DLAR 4130.12, Procedures for Use When Requesting Supply Support and Catalog Actions, Excluding the Provisioning Process, January 28, 1970.

DoDD 4000.19, Basic Policies and Principles for Interservice, Interdepartmental and Interagency Support, March 27, 1972.

DoDD 4100.35, Development of Integrated Logistic Support for Systems/Equipments, October 1, 1970.

DoDM 4100.38, Provisioning and Other Preprocurement Screening Manual, May 1978.

DoDM 4100.39, Defense Integrated Data System Procedures Manual, April 1978.

DoDD 4130.2, The Federal Catalog System, August 19, 1975.

DoDM 4140.22, Military Standard Transaction Reporting and Accounting Procedures.

DoDD 4140.26, Integrated Materiel Management of Consumable Items, July 10, 1979.

DoDM 4140.26, Integrated Materiel Management for Consumable Items, Volume I, Commodity Oriented Items, August 1972.

DoDM 4140.26, Integrated Materiel Management for Consumable Items, Volume II, Weapons System Oriented Items, August 1972.

DoDM 4140.26, Defense Integrated Materiel Management Manual for Consumable Items, Volume I, Commodity Oriented Items, May 1978.

DoDD 4140.40, Basic Objectives and Policies on Provisioning of End Items of Materiel, February 20, 1973.

DoDI 4140.42, Determination of Initial Requirements for Secondary Item Spare and Repair Parts, August 7, 1974.

DoDI 4151.7, Uniform Technical Documentation for Use in Provisioning of End Items of Materiel, March 26, 1975.

DoDI 5000.8, Glossary of Terms Used in the Areas of Financial, Supply and Installation Management, June 15, 1961.

DoDD 5000.19, Policies for the Management and Control of Information Requirements, March 12, 1976.

Appendix C, page 6

DoDD 5010.22, The Management and Conduct of Studies and Analyses, November 22, 1976.

DoDD 5030.47, National Supply System, May 27, 1971.

DoDI 5100.45, Centers for Analysis of Scientific and Technical Information, July 28, 1964.

DoDI 5100.63, Provisioning Relationships Between the Military Services, Defense Agencies, and Commodity Integrated Materiel Managers, June 7, 1972.

DoDD 5105.22, Defense Logistics Agency (DLA), June 8, 1978.

DoDI 5154.19, Defense Logistics Studies Information Exchange, July 13, 1972.

DoDI 7041.3, Economic Analysis and Program Evaluation for Resource Management, October 18, 1972.

DoDI 7720.13, Research and Technology Work Unit Information System, April 16, 1968.

DoDI 7935.1, DoD Automated Data Systems Documentation Standards, September 13, 1977.

FMSOINTNOTE 5400, 30 September 1977, Subject: FMSO Reorganization.

Functional Description for AFLC Provisioning System DSD D220, 1 December 1975.

Functional Description for Supply Support Request (SSR)/Advice - Consumable Items Systems (D169), 3 April 1978.

GSA-FSS/LDMD Director's Operations Memorandum No. 521a, June 1978, Subject: Data Flow - Concurrent Submittal.

GSA-FSS Procurement Letter No. 228, 3 March 1977, Subject: Procedures for Processing Item Entry Applications GSA Form 1303 and DoD Forms 1448, 1449, 1590, and Item Management Coding (IMC).

HQ AFLC ACD Letter, 13 March 1978, Subject: Supply Support Request Advice (Consumable Item) System, DPD LOG-LOL-*76-173-001 (D169).

HQ AFLC CASO/LODI 73-2, 17 April 1978, Processing Item Offers by Defense Logistics Agency (DLA) Resulting From Supply Support Requests.

HQ AFLC SMALC/MMOI 57-44, 26 January 1979, Processing Supply Support Requests (SSRs) Advice D169 System.

HQO P5400.18, 25 April 1974, Headquarters Marine Corps Organization Manual (HQMCORGMAN).

ICP DIVINTINST 2340.1F, 2 February 1976, Subject: UICP Package Designations; Promulgation of

Marine Corps Order P4400.70B, 8 September 1972, Marine Corps Unified Material Management System (MUMMS) Introduction Manual.

Marine Corps Order (P5200.15, 15 June 1973, Automated Data Systems Manual (ADSM).

Marine Corps Order 5230.9, 17 November 1975, Subject: Standard Procedures for the Control of Centrally Managed Automated Data Systems.

Marine Corps Order 5230.8, 17 November 1975, Subject: Maintenance and Modification of Automated Data Processing Applications Software; Request for.

MIL-STD-1388-1, Military Standard Logistic Support Analysis, 15 October 1973.

MIL-STD-1552, Military Standard Provisioning Technical Documentation, Uniform DoD Requirements For, 11 November 1974.

MIL-STD-1561, Military Standard Provisioning Procedures, Uniform DoD, 11 November 1974.

NAVSUPINST 4421.15D, 30 October 1969, Subject: Navy Fleet Material Support Office, Material Mission of.

NAVSUPINST 4421.17D, 5 September 1975, Subject: Navy Ships Parts Control Center; Material Mission of.

NAVSUPINST 5230.11, 28 October 1971, Subject: UADPS for Supply Management Documentation Requirements; Establishment of.

NAVSUPINST 5450.59G, 2 May 1975, Subject: Navy Ships Parts Control Center, Mechanicsburg, Pennsylvania; Mission and Functions of.

NAVSUPINST 5450.86C, 14 March 1974, Subject: Navy Fleet Material Support Office, Mechanicsburg, Pennsylvania; Mission and Functions.

Appendix C, page 8

NAVSUP Letter Sup 0342C/SAG/S-16B/SER 72, 1 April 1977, Subject: UICP A/O J-07 (Supply Support Requests); Systems Policy and Concepts (SPC) for.

Principles of Electronic Data Processing, Proceedings Automatic Data Processing Conference, Harvard University, Graduate School of Business, Boston, 1956.

Program Maintenance Manual for Supply Support Request (SSR)/ Advice - Consumable Items System (D169) (Draft), 1 May 1978.

Program Support Interest/Master Data File/Technical Reference File Maintenance Training Manual, September 1977.

Report on the Flow of Item Logistics Management Data (ILMD) in the Department of Defense, February 1973.

SMALC MMOI 72-1, 13 June 1978, Federal Supply Cataloging - Screening and Cataloging Procedures.

SPCCINTINST 47902A, No date, Subject: Nonconsumable Item Program; Processing Material Support Requests Under.

SPCCINSTNOTE 5400, 30 September 1975, Navy Ships Parts Control Center Organization Manual.

SPCC Internal Instruction 4400.30C, 31 August 1977, Subject: Provisioning; Policies, Procedures and Responsibilities for.

SPCC Stock Control Division Memorandum No. 183, 20 April 1976, Subject: NIMSR (Nonconsumable Item Material Support Requests); Processing Instructions.

SPCC Stock Control Division Memorandum No. 203, 26 October 1976, Subject: Planned Requirements; General Information.

Subsystem Specification for the Supply Support Request (SSR)/ Advice -Consumable Items System (D169), 30 May 1978.

Supply Operations Division Operating Directive P16, Change 5; 2 June 1975; Subject: SODOD P16, Special Programs, Change 5 to.

Supply System Design Specifications (SSDS) for Uniform Inventory Control Program (UICP) A/O D55, 3 December 1976, System Stock Requirements for SPCC Provisioning.

Supply System Design Specifications (SSDS) for Uniform Inventory Control Program (UICP) A/O D53, 28 February 1973, Initial Outfitting Requirements for ASO Provisioning.

The Theory and Management of Systems, Richard A. Johnson, Fremont E. Kast, James E. Rosenzweig, McGraw-Hill Book Co., Inc., New York, 1963.

TSARCOM Directorate of Maintenance Operating Instruction No. 340-200, Routing of AMC Logistics Program - Hardcore, Automated (ALPHA) - Commodity Command Standard System (CCSS) Input and Output, 13 January 1976.

TSARCOM Directorate for Materiel Management Pamphlet, Supply Distribution and Accounting Codes Stock Control, October 1977.

TSARCOM Maintenance Operating Directive 715-22-007, Spare/Repair Parts Breakout Program, 14 April 1978.

TSARCOM-R 700-6, TSARCOM Standard Provisioning System, 18 April 1978.

Weapon Systems File Maintenance Training Manual, January 1977.

APPENDIX D

REFERENCES

1. Report on the Flow of Item Logistics Management Data (ILMD) in the Department of Defense, February 1973.
2. DoDD 4140.26, "Integrated Materiel Management of Consumable Items," February 26, 1972.
3. DoDM 4140.26, "Integrated Materiel Management for Consumable Items, Volume I, Commodity Oriented Items," August 1972.
4. DoDM 4140.26, "Integrated Materiel Management for Consumable Items, Volume II, Weapons System Oriented Items," August 1972.
5. DoDI 5100.63, "Provisioning Relationships Between the Military Departments and Defense Agencies and Commodity Integrated Materiel Managers," June 7, 1972.
6. DLAR 4140.35, "Military Services - Defense Logistics Agency Provisioning Responsibilities," March 18, 1969.
7. DLAR 4130.12, "Procedures for Use When Requesting Supply Support and Catalog Actions, Excluding the Provisioning Process," January 28, 1970.
8. AMCP-700-4, NAVMAT-P-4000-1, AFLCM/AFSCM 400-4, "Standard Integrated Support Management System (SISMS)," March 18, 1969.
9. DoDM 4140.26, "Defense Integrated Materiel Management Manual for Consumable Items, Volume I, Commodity Oriented Items," May 1978.
10. DoDI 4140.42, "Determination of Initial Requirements for Secondary Item Spare and Repair Parts," August 7, 1974.
11. Systems Analysis for Business Management, Stanford L. Optner, Prentice-Hall, Inc., Englewood Cliffs, N.J., 1960.
12. The Theory and Management of Systems, Richard A. Johnson, Fremont E. Kast, James E. Rosenzweig, McGraw-Hill Book Co., Inc., New York, 1963.
13. Principles of Electronic Data Processing, "Proceedings Automatic Data Processing Conference," Harvard University, Graduate School of Business, Boston, 1956.

14. DoDD 4100.35, "Development of Integrated Logistic Support for Systems/Equipments," October 1, 1970.
15. DoDD 4000.19, "Basic Policies and Principles for Inter-service, Interdepartmental and Interagency Support," March 27, 1972.
16. DoDD 4140.26, "Integrated Materiel Management of Consumable Items," July 10, 1979.
17. DoDD 5030.47, "National Supply System," May 27, 1971.
18. DoDD 5105.22, "Defense Logistics Agency (DLA)," June 8, 1978.
19. DoDD 4140.40, "Basic Objectives and Policies on Provisioning of End Items of Materiel," February 20, 1973.
20. AR 700-82/OPNAVINST 4410.2/AFR 66-45/MCO 4400.120/DLAR 4100.6, "Joint Regulation Governing the Use and Application of Uniform Source, Maintenance and Recoverability Codes," 22 June 1971.
21. AFLCR 400-21/DARCOMR 700-99/NAVMASINST 479023A/MCO P4410.22A, "Elimination of Duplication in the Management and Logistics Support of Multiused Nonconsumable Items," 30 March 1978.
22. MIL-STD-1552, Military Standard, "Provisioning Technical Documentation, Uniform DoD Requirements For," 11 November 1974.
23. MIL-STD-1561, Military Standard, "Provisioning Procedures, Uniform DoD," 11 November 1974.
24. DoD 4100.38M, "DoD Provisioning and Other Preprocurement Screening Manual," May 1978.
25. DoD 4100.39M, "Defense Integrated Data System Manual," Volumes 1-10, May 1978.
26. DoD 4140.22M, "Military Standard Transaction Reporting and Accounting Procedures," (MILSTRAP), January 1977.
27. DoD 5010.15.1-M, "Standardization of Work Measurement," Basic Volume, General Guidance, June 1977.
28. DLAR 4140.38, "DLA Weapon Systems Support Program (RCS DLA(M)516(0))," 10 June 1974.
29. Letter DLA-OP, "Policy Concerning Provisioning Support on Selected Weapon Systems, 18 May 1977.

30. DLAM 4140.2, "Supply Operations Manual, Volume II, Part 2, Defense Supply Center Supply Operating Procedures," October 1979.
31. DLAM 4130.3, "Standard Automated Materiel Management System (SAMMS), Volume II, Technical Operations Procedures Manual," March 1977.
32. DoD 4140.17M, "Military Standard Requisitioning and Issue Procedures," August 1976.

APPENDIX E

ACRONYMS

AAC: Acquisition Advice Code
ACF: Activity Code From
ACN: Activity Control Number
ACT: Activity Code To
ADP: Automatic Data Processing
ADS: Automated Data System
AFLC: Air Force Logistics Command
AICP: Aviation Inventory Control Point
ALC: Air Logistics Center
ALMSA: Automated Logistics Management Systems Activity
ARCSIP: Automated Requirements Computation System Initial
Provisioning
ASD(MR&L): Assistant Secretary of Defense (Manpower, Reserve
Affairs and Logistics
ASO: Aviation Supply Office
ATC: Action Taken Code
AUTODIN: Automatic Digital Network

BDN: Bulk Data Network

CAMF: Catalog Action Monitor/Master File
CASO: Cataloging and Standardization Office
CCSOI: Commodity Command Standard System Operating Instruction
CCSS: Commodity Command Standard System
CDA: Catalog Data Activity
CDPD: Central Data Processing Division
CESO: Civil Engineer Support Office
CIMM: Commodity Integrated Materiel Manager
CMD: Computer Management Division
COB: Catalog Operations Branch
CPCI: Computer Program Configuration Item
CRF: Cross Reference File
CSDS: Clerical Screening and Distribution Section
CSLA: Communications Security Logistics Agency

DAB: Data Automation Branch
DAC: Document Availability Code
DARCOM: Department of Army Readiness Command
DCN: Design Change Notice
DCS: Deputy Chief of Staff

Appendix E, page 1

DCSC: Defense Construction Supply Center
DESC: Defense Electronics Supply Center
DGSC: Defense General Supply Center
DIC: Document Identifier Code
DIDS: Defense Integrated Data System
DIDSTIR: Defense Integrated Data System Total Item Record
DLA: Defense Logistics Agency
DLAO: Defense Logistics Analysis Office
DLSC: Defense Logistics Services Center
DM: Directorate for Maintenance
DMB: Data Management Branch
DMIS: Directorate for Management Information Systems
DMM: Directorate of Materiel Management
DOA: Date of Advice
DoD: Department of Defense
DODSSR: Department of Defense Supply Support Request
DOR: Date of Request
DPP: Directorate for Procurement and Production
DPS: Data Processing Specification
DRPR: Date Repair Parts Required
DSAC: Defense Logistics Agency Systems Automation Center
DSB: Data Services Branch
DSC: Defense Supply Center
DSCN: Document Serial Control Number
DSFA: Designated Special Functions Activity
DSO: Directorate of Supply Operations
DTDS: Date Technical Data to be Supplied
DTO: Directorate of Technical Operations

EAM: Electronic Accounting Machine
EGICP: Electronics/General Inventory Control Point
E/I: End Item
EIP: End Item Parameter
EMRA: Electronics Materiel Readiness Activity
ERB: Engineering and Reliability Branch

FCS: Federal Catalog System
FFCG: Field Functional Coordination Group
FII: Federal Item Identification
FIIG: Federal Item Identification Guide
FLDF: Federal Logistics Data File
FMSO: Fleet Material Support Office
FSC: Federal Supply Class
FSCM: Federal Supply Code for Manufacturers
FSG: Federal Supply Group
FSS: Federal Supply System/Service

GMPA: General Materiel and Petroleum Activity
GSA: General Services Administration
GSA-FSS: General Services Administration, Federal Supply Service

HME&O: Hull, Mechanical and Ordnance

ICP: Inventory Control Point
ICR: Item Control Recommendation
IEB: Item Entry Branch
IEC: Item Entry Control
II: Item Identification
IIB: Item Identification Branch
ILMD: Item Logistics Management Data
ILSO: Integrated Logistics Support Office
IM: Item Manager/Management
IMC: Item Management Coding
IMM: Integrated Materiel Manager
IRPOD: Individual Repair Parts Ordering Data
ISF: Interface Suspense File
ISN: Item Serial Number

LDM: Logistics Data Management
LDMD: Logistics Data Management Division
LIAC: Line Item Advice Card
LISSR: Line Item Supply Support Request
LOA: Level of Authority
LSB: Logistics Support Base

MAB: Management Analysis Branch
MAPL: Master Associated Provisioning List
MCASC: Marine Corps Automated Services Center
MCLSBA: Marine Corps Logistics Support Base Atlantic
MCN: Management Control Number
MCRL: Master Cross Reference List
MDF: Master Data File
MIF: Master Inventory File
MMAC: Materiel Management Aggregation Code
MMD: Materiel Management Decision
MOE: Major Organizational Entity
MRC: Materiel Readiness Command
MRMDS: Master Reference and Management Data System
MSB: Materiel Support Branch
MUMMS: Marine Corps Unified Materiel Management System

NAVSUP: Naval Supply Systems Command
NIIN: National Item Identification Number

NIMSR: Nonconsumable Item Materiel Support Request
NSN: National Stock Number
NSO: Numeric Stockage Objective

ODS: Office of Data Systems
ONR: Old NIIN Reference
OOALC: Ogden Air Logistics Center
OPR: Office of Primary Interest

PCAM: Punched Card Accounting Machine
PCC: Provisioning Control Code
PCCN: Provisioning Contract Control Number
PCO: Provisioning Contract Office
PD: Provisioning Division
PDCN: Provisioning Document Control Number
PDR: Program Data Record
PDSSR: Program Data Supply Support Request
PICA: Primary Inventory Control Activity
PIO: Provisioning Item Order
PLISN: Provisioning Line Item Serial Number
PLT: Production Lead Time
PMB: Program Management Branch
PMC: Procurement Method Code
PMF: Provisioning Monitoring File
PMR: Provisioning Master Record
PPR: Planned Program Requirements
PRF: Project Requirements File
PSCN: Permanent System Control Number
PSI: Program Support Interest
PTD: Provisioning Technical Documentation
PXR: Provisioning Cross Reference

QAD: Quality Assurance Division

REFNO: Reference Number
RNCC: Reference Number Category Code
RNFC: Reference Number Format Code
RNJC: Reference Number Justification Code
RNVC: Reference Number Variation Code

SAMMS: Standard Automated Materiel Management System
SCR: Systems Change Request
SDA: Systems Design Activity

Appendix E, page 4

SFB: Stock Fund Branch
SICA: Secondary Inventory Control Activity
SICC: Service Item Control Center
SICP: Ships Inventory Control Point
SM&R: Source, Maintenance and Recoverability
SMALC: Sacramento Air Logistics Center
SMCC: Special Materiel Content Code
SMS: Supply Management Suspense
SPC: Systems Policy and Concepts
SPCC: Ships Parts Control Center
SPG: Special Projects Group
SPR: Special Program Requirement
SPU: Special Programs Unit
SSR: Supply Support Request

TARCOM: Tank-Automotive Materiel Readiness Command
TCC: Type of Change Code
TDJC: Technical Data Justification Code
TDMO: Technical Data Management Office
TID: Technical Information Division
TIR: Total Item Record
TOD: Technical Operations Division
TRF: Technical Reference File
TSARCOM: Troop Support and Aviation Materiel Readiness
 Command
TSD: Technical Services Division

UADPS-SP: Uniform Automated Data Processing System for Stock
 Points
UADPS-Afloat: Uniform Automated Data Processing System for
 Ships
U/I: Unit of Issue
UICP: Uniform Inventory Control Point

WIMM: Weapons Integrated Materiel Manager
WSC: Weapon System Code
WSF: Weapons Systems File
WSSP: Weapon Systems Support Program

DATE
FILMED
— 8